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THE WHITE HOUSE

WASHINGTON

August 29, 1985

Dear Chip:

Thank you for your letter regarding the new Federal Criminal Justice Research Data Base.

As you may know, the White House does not fund research projects. You may want to contact NIDA or OJJDP.

Good luck with your project.

Best wishes,

Sincerely,

Carlton E. Turner, Ph.D. Deputy Assistant to the President for Drug Abuse Policy

The Honorable James K. Stewart Director National Institute of Justice U.S. Department of Justice 633 Indiana Avenue, N.W. Washington, D.C. 20531



7



U.S. Department of Justice

National Institute of Justice

01 AUG 1985

Office of the Director

Washington, D.C. 20531

July 24, 1985

Dr. Carlton Turner Assistant to the President Drug Abuse Education The White House Washington, DC 20500

Dear Dr. Turner :

The National Institute of Justice is developing a new data base as part of its overall mission to pursue policy-relevant research and acquire knowledge about crime, its causes and control. The Federal Criminal Justice Research Data Base will incorporate project descriptions of all Federal criminal justice research that is in progress or has been recently completed. We are developing this important resource under the provisions of legislation (42 U.S.C. 3701-3799) that authorizes the National Institute of Justice to collect and disseminate information related to criminal justice research activities across Federal agencies and to serve as a national clearinghouse in the justice area.

Carelton

I foresee great potential in the development of this data resource for all those involved with supporting research in the area of criminal justice. The data base will serve to bridge the prepublication gap by providing information on research projects between the time of their inception and the appearance of final reports. It will also track the disposition of final reports and other products of the research.

I am writing to ask that you take time to submit descriptions of federally sponsored criminal justice research projects under your purview. Your assistance with this project is greatly appreciated and will go a long way in promoting the networking and exchange benefits of this Federal coordination effort. The data base will serve as a mechanism for interagency coordination and for avoiding duplication of effort.

My staff will need your help to accomplish these goals. They will need information about your projects' subject area, anticipated results and products, and grantee or contractor. The data base will be searchable by each of these items. In exchange for your help, you and your staff will have free access to the data base, which information specialists at the National Institute of Justice/National Criminal Justice Reference Service will search at your request. For your convenience, we are enclosing project information we already have, thanks to your gracious submissions to us in the past for such mandated projects as the Biennial Report to Congress. We also are providing blank forms you might wish to have staff use in submitting information about new projects and for updating older ones. There is a special need to know:

--any justice-related research your agency has funded that was in progress as of January 1, 1985;

--contact persons and grantee name, address, and telephone number;

--a brief description of each project (250 words or less);

--results and product information.

We anticipate having the data base ready for searching by October 1985, and would appreciate receiving the information requested here no later than September 1, 1985. The attached instruction sheet should answer any questions in completing the information requested.

Again, my sincere appreciation for what will no doubt be an important contribution to our efforts in developing the Federal Criminal Justice Research Data Base.

Sincerely,

James K. Stewart Director National Institute of Justice



U.S. Department of Justice

National Institute of Justice

National Criminal Justice Reference Service

Box 6000, Rockville, MD. 20850

Instructions for Submitting Project Information for

the Federal Criminal Justice Research Data Base

The National Institute of Justice/NCJRS is collecting information on justice-related research projects for the Federal Criminal Justice Research Data Base. This data base will contain descriptions of current projects as well as any project that was operational on January 1, 1985, or later. Information in the data base will be available to all contributors in the form of custom searches performed by NCJRS staff.

If your agency has funded justice research projects during this time period, we request that you provide us with descriptions of these. Please supply the following information for each project:

- o Monitor
- o Recipient Organization
- o Project Director
- o Project Number
- o Dollar Amount
- o Project Begin Date
- o Project End Date
- o Summary
- o Proposed Products

To assist you with this task, we have included several tools to help you:

- o A sample data base record.
- An annotated list of fields in the data base record, specifying the type of information requested for each field.
 - A record control form for supplying project information to NCJRS.

We have also included the information you submitted to the National Institute of Justice/NCJRS for the <u>Biennial Report</u>, as well as any other project information we had in our files. Project descriptions can be updated directly on these materials. The record control form need only be used to provide supplemental information. In some cases, however, no information about your agency's projects was available to us. In those instances, we request that you please complete a record control form for each project you would like to see included in our file. Your response is requested by September 1, 1985. It should be addressed to:

Ms. Nancy Pearse National Institute of Justice/NCJRS Box 6000 Rockville, MD 20850

In your submission, please provide the name and phone number of the person to contact in your agency for further information about your submission.

Should you have any questions about our data base or our data collection activities, please contact Nancy at the above address or call her at (301) 251-5377. Again, many thanks for your support and assistance.

PROJECT TITLE: Crime Analysis Project SPONSOR: U.S. Department of Justice National Institute of Justice Office of Research and Evaluation Methods Washington, D.C. 29531 MONITOR: Richard G. Kerlikowske (202) 724-2959 RECIPIENT ORGANIZATION: Police Executive Research Forum 2300 M Street, NW. Washington, D.C. 20037 **PROJECT DIRECTOR:** John Eck (202) 466-7820 **PROJECT NUMBER:** 84IJCX0040 DOLLAR AMOUNT: \$1,069,746

PROJECT PERIOD:

BEGIN DATE:	84/07/01
END DATE:	86/06/30

SUMMARY:

The intent is to develop and evaluate the impact of an improved crime analysis process in the Newport News Police Department. The improved system will build on the work and experience of a number of police organizations including ICAP sites. The development phase will rely on a police department task force supported by PERF and outside consultants. The evaluation will entail both process and impact assessments and is designed to provide other police departments through the country with a model from which they can construct their own incident analysis system. The improved model will specifically focus on two previously identified problems with the traditional crime analysis approach--the failure to fully use the broad array of information routinely available to the police and the failure to successfully integrate analysis and operational personnel. It is anticipated that the improved crime analysis process will better address the needs of those in the field actually doing the police job. It will provide more useful and workable answers to the problems which confront them than the answers that are currently provided by traditional crime analysis. A broader range of information and a more open form of analysis will suggest a broader range of solutions.

INDEX TERMS:

Crime analysis; model programs; program designs; police information systems; program evaluation; Newport News, Virginia

PROPOSED PRODUCTS OR RESULTS:

Catalog--of crime analysis information sources (7/84). Evaluation study--to determine the effectiveness of an improved crime analysis system (5/85).

Model program--for establishing a crime analysis system (7/85).

FINAL PRODUCTS:

Grant final report:

Report--Crime Analysis. R. Paul McCauley. Louisville, Kentucky: National Crime Prevention Institute, 1985.

Other grant products:

Book--Catalog of Crime Analysis Information Sources. John Smith. Orangevale, California: Palmer, 1985.

DISPOSITION OF FINAL PRODUCTS:

NCJRS--Crime Analysis. (NCJ 74818). Document Loan Program or microfiche. <u>Catalog of Crime Analysis Information Sources</u>. (NCJ 99999). Document Loan Program.

Palmer Publishing--Catalog of Crime Analysis Information Sources.

DERIVATIVE LITERATURE: (Added as it is identified.)

AMENDMENT INFORMATION: 08/29/84; 01/22/85

ACTIVE/CLOSED: Active

Fields in the Data Base Record

(Essential fields are marked with an asterisk*)

- 1. <u>SEQ (Sequence Number)</u>: This is a system-generated identification number. Do not write in this space.
- 2. FY (Fiscal Year): The Fiscal Year in which the project was awarded.
- 3. PT (Project Title): Enter the project title here.
- 4. <u>SP (Sponsor)</u>: Your agency's name is to be recorded in this field. Provide full address, including zip code.
- 5. <u>*MN (Monitor)</u>: The person at your agency who is responsible for overseeing the project. Provide full name and phone number, including area code.
- 6. <u>*RO (Recipient Organization)</u>: The name and address of the grantee or contractor performing the work associated with this project.
- *DIR (Project Director): The project administrator within the grantee or contractor organization. Provide full name and phone number, including zip code.
- 8. <u>INV (Principal Investigator)</u>: The key resource person for project information within the grantee or contractor organization. If the project director and principal investigator are the same person, enter "same" in this field.
- 9. <u>*PNO (Project Number)</u>: The control number your agency assigns to the project as its unique identifying number.
- 10. <u>*DOL (Dollar Amount)</u>: The project award amount, including any supplemental awards to date.
- 11. <u>RPN (Related Project Numbers)</u>: Projects your agency sponsors which are directly related with the project being described.
- 12. <u>*PBD (Project Begin Date)</u>: The first two digits designate year, second two, month, and final two, day within the month when the project began.
- 13. *PED (Project End Date): Same format as PBD, designating the last day of the period of performance.

- 14. <u>*SM (Summary)</u>: A narrative description of the project, including, if possible, the general overall study design of the research project. Types of study designs include:
 - o time series or longitudinal study
 - o cross-sectional analysis
 - o case study
 - o randomized experiment
- 15. <u>IND (Index Terms)</u>: Subject descriptors assigned to the project to aid retrieval. Do not write in this space.
- 16. <u>*PPR (Proposed Products or Results)</u>: Forthcoming products or results of performing the research. What the performing organization will produce. A listing of candidate product types is appended to these instructions. Sample descriptions include the following:
 - Project evaluation--to determine the effectiveness of an improved crime analysis system. (Expected date: 9/85).
 - o Catalog--of crime analysis information sources. (10/85).
 - o Model program description--of a crime analysis system. (10/85).
- 17. FPR (Final Products or Results): Record any information about final products that have been completed here, e.g.:

Grant final report: Report--<u>Crime Analysis</u>. R. Paul McCauley. Louisville, Kentucky: National Crime Prevention Institute, 1985. Other grant products: Book--<u>Catalog of Crime Analysis Information Sources</u>. John Smith. Orangevale, California: Palmer, 1984.

- 18. DFP (Disposition of Final Products): If you know how or where someone can obtain a copy of the final product(s), indicate that source here.
- 19. LIT (Derivative Literature): Secondary products prepared by the grantee or contractor after the period of performance. Work that builds on this project. This work is not necessarily funded by your agency. Enter data, if available. In most cases, these projects will not have derivative literature so soon.
- 20. <u>AM (Amendments)</u>: If amendments to the original award have been made, enter the date and type of change, e.g., change of monitor, project director, or performance period.
- 21. AC (Active/Closed): Indicate if the project is still operational.
- 22. <u>GRF (Graduate Research Fellowship)</u>: If this project supports the preparation of a master's thesis of doctoral dissertation enter a "Y" for yes.
- 23. LMD (Last Modification Date): For use by the data base administrator. Do not write in this space.

Proposed Product Types

Instructional materials

(For use by instructors or students)

Training materials

(Primary emphasis is enhancement of practical skills or knowledge) Training handbooks or manuals

Overview texts

Programmed instructional materials

Curricula

Public information/citizen involvement materials Youth-oriented materials

IUden-OITenced materials

Program/project descriptions/evaluations

Demonstration program descriptions

(Programs or practices initiated to illustrate relative merit or assess effectiveness of concept)

Model program descriptions

(Programs with proven success, generally considered to be prototypes) Program/project evaluations

(Measure of program/project effectiveness by accepted scientific methodology)

Studies/research reports

Theoretical research

(Proposes an explanation for some behavior or phenomenon without substantive verification)

Applied research

(Direct application of a hypothesis to an existing program or practice) Theses/dissertations

Technical assistance reports

Technical report

Surveys

(Studies of populations, areas, or issues to determine practices, procedures, or attitudes)

Issue overviews

State-of-the-art reviews

(Reviews all aspects of knowledge on an issue, practice, method, etc., to its present state)

Histories, historical perspectives

Tests/measurements

Measurement/evaluation devices Questionnaires

Statistical data

Conference/symposia proceedings/reports/records/minutes

Standards/regulations/guidelines

Reference materials Catalogs Literature reviews/bibliographies Dictionaries Annual reports/yearbooks Directories Policies/procedures handbooks/manuals

	Federal Criminal Justice Research Data Base Record Control Form
	DO NOT WRITE IN SHADED AREAS
1 SEQ:	Sequence Number Fiscal Year 2 FY:
*3 PT:	Project Title
4 SP: _	Sponsor (Agency Name; Address.)
	Monitor (Last, First; Phone *.)
*6 RO:	Recipient Organization (Name; Address.)
-	
* 7 DIR :	Project Director (Last, First; Phone.)
8 INV :	Principal Investigator (Last, First; Phone.)
*9 PNO:	Project Number Dollar Amount(\$) *10DOL:
11.RPN:	Related Project Numbers
*12. PBD:	Project Begin Date Project End Date *13PED: LLLL YY MM DD required field.

***	Summary
14 SM :	
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15 IND	:
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*16 PPR	

Federal Criminal Justice Research Database Record Control Form Page 3 for Accession number

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17	FPR	
		Disposition of Final Products
18	DFP	
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Rochann Pariss 816-221-7500

DVERTISING / PUBLIC RELATIONS 2 WEST 9th STREET INSAS CITY, MISSOURI 64103 6) 221-7500

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SENT BY: Moore Hoch & Hughes ; 7-25-86 3:02PM ;

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NEWS

July 25, 1986

KANSAS CITY ANTI DRUG PROGRAM

PACT SHEET

Del and Debbie Dunmire

BACKGROUND

On Sunday, August 3, 1986, Mr. and Mrs. Delbert L. Dummire will announce the kick-off of their \$1 million campaign to fight drugs in the Greater Kansas City area. Under the auspices of a private foundation, the Dunmires hope to attack the drug problem from the demand side, in their belief that only through such an approach can success in this effort be achieved.

HETORY

As founder and president of Growth Industries Enterprises in Grandview, Missouri Del Dunmire has seen his vision grow from a machine shop housed in a garage to a company specializing in aviation replacement parts which services international clients. Recognizing a significant drug problem both within the sompany and family as well, Dunmire established an incentive/reward system at Gausth Industries which has, in its short history, helped many employees to get off and stay off of drugs.

PROPOSED DRUG-FREE AMERICA CAMPAIGN

The success of Growth Industries' anti-drug efforts, coupled with an acknowledged void of such efforts within other area companies has provided the incentive for the drug program which is to be announced on August 3.

Below is a brief outline of the campaign's goals to date:

o <u>Educatica</u>

Crucial to the success of any effectively-run issue campeign is a persuasive education effort. The Dunmires' foundation will develop informational brochures for Kansas City area schools, businesses and non-profit organizations and will provide manpower support to spread its message throughout the metropolitan area. It is important to reiterate that this facet of the campaign applies a demand-oriented approach, attempting to reach prospective users before they make the choice to use drugs.

GROWFH INDUSTIONS ENTERPRISES \$2523 THIRD STREET, P.O. BOX D GRANDVISW, MO 64030-0237

PRESERVATION COPY

SENT BY: Moore Hoch & Hughes

; 7-25-86 2:58PM ;

8162217570→

CCITT G2;# 1

CPUSER MOORE HOCH "HUGHES

ATTENTION: DENA

July 25, 1986

Carlton Turner Special Assistant to the President for Drug Policy Old Executive Office Building 17th & Pennsylvania Avenne, N.W. Room 220 Washington, D.C. 20500

Dear Mr. Turner:

Attached please find a brief outline of the Kansas City anti-drug campaign supported by the efforts of Mr. and Mrs. Del Dunmire.

We hope that your schedule will allow you to join us at the August 3 Kansas City kick-off, and will be back in touch with you shortly.

Minderely Elehard E. Moor President

THE WHITE HOUSE washington January 30, 1984

Dear David:

Enclosed is a compilation of news items relating to Pope John Paul II and the drug abuse issue.

I thought these comments by the Pope might be of benefit to you.

Sincerely,

Carlton E. Turner, Ph.D. Special Assistant to the President for Drug Abuse Policy

P.S. I tens on Per 2 150 enclose d.

Dr. David Jordan Ambassador-Designate (PERU) Department of State 2201 C Street, N.W. Washington, D.C. 20520



The Coca Paste Epidemic in South America Epidemiological, Clinical, Experimental and Therapeutic Observations

F.R. Jerí, M.D., F.R.C. Psy.

Reprint from Revista de la Sanidad de las Fuerzas Policiales Vol. 43, Nº 2, 1982 Lima - Perú

Revista de la Sanidad de las Fuerzas Policiales Vol. 43, Nº 2, págs. 170 - 179, 1982

The Coca Paste Epidemic in South America

Epidemiological, Clinical, Experimental and Therapeutic Observations

F.R. Jerí, M.D., F.R.C. Psy.*

SUMMARY

Coca paste is an advanced stage in the chemical extraction of cocaine from coca leaves. It is also called basic cocaine paste. It contains from 40 to 91 per cent cocaine and when dried it can be smoked. Coca paste smoking has attained epidemic proportions in the last ten years in South-America. There are now many thousands of recreational, intensive or dependent smokers of coca paste in Peru and Bolivia. Coca paste has been confiscated in most northern and western American countries (Ecuador, Colombia, Brasil, Panama and the United States of America).

Coca paste addiction can be acquired in a few months and it has a characteristic natural history, from the stage of experimentation to a state of severe physical, mental and social deterioration. Symptoms of coca paste use and abuse are similar to what is seen in cocaine intoxication. In chronic or relapsing users four stages are observed: euphoria, dysphoria, hallucinosis and psychosis. During experimental essays, with volunteers who had smoked coca paste in the past, euphoria and dysphoria was documented in all instances. In a few observations hallucinosis was also seen.

By blood chemical analysis it has been proved that the effects of coca leave chewing, coca paste smoking and cocaine hydrochloride ingestion or injection are due to the alkaloid cocaine. Therefore coca paste smoking can produce severe intoxication, prolonged or relapsing psychosis, and death. Treatment and rehabilitation attempts have demonstrated that excessive coca paste smoking is a malignant form of drug addiction, resistant to most therapeutic interventions, and that the treated subjects have a high rate of relapses.

RESUMEN

La pasta de coca, también llamada pasta básica de cocaína, es un estado avanzado en la extracción química del clorhidrato de cocaína a partir de las hojas de coca. La pasta contiene de 40 a 91 por ciento de cocaína y cuando está seca puede fumarse. En los últimos diez años el fumar pasta de coca ha adquirido proporciones epidémicas en Sud América. Existen actualmente muchos miles de fumadores de pasta recreacionales, intensivos o dependientes en el Perú y en Bolivia. La pasta de coca ha sido confiscada por los organismos de control en la mayor parte de países americanos septentrionales y occidentales (Estados Unidos, Colombia, Panamá, Ecuador, Perú y Bolivia).

La adicción a la pasta de coca puede adquirirse en unos pocos meses y tiene una historia natural característica, desde la etapa de experimentación hasta un estado de grave deterioro físico, mental y social. Los síntomas producidos por el uso y abuso de pasta son similiares a los observados con la intoxicación cocaínica. En los usuarios crónicos o recidivantes se observan cuatro etapas: euforia, disforia, alucinosis y psicosis. Durante ensayos experimentales con voluntarios, antiguos fumadores de pasta, se comprobó en todos los casos euforia y disforia. En pocas observaciones también se notaron breves episodios alucinatorios.

Mediante análisis sanguíneos se ha prohado que los efectos de masticar-absorber (acullicar-chacchar) hojas de coca, fumar pasta de coca y emplear clorhidrato de cocaina (por vía oral o parenteral), son causados por el alcaloide cocaína. Sin embargo, el fumar pasta de coca en exceso puede producir graves intoxicaciones, psicosis prolongadas o recidivantes, y hasta la muerte. Los esfuerzos hechos hasta ahora para el tratamiento y la rehabilitación de estos sujetos, han demostrado que el fumar excesivamente pasta de coca es una forma maligna de fármaco-dependencia, resistente a la mayor parte de intentos terapéuticos y caracterizada por tasa alta de recidivas.

*Neuropsychiatric Consultant, Health Service, Ministry of the Interior; Professor of Clinical Neurology, National University of San Marcos; Apartado 5281, Lima 100, Peru.

INTRODUCTION

Early in the seventies (1) peruvian physicians were puzzled by youngsters who began to smoke a preparation popularly called "cocaine paste" and who rapidly developed a compulsive need to repeat the experience. Soon many paste smokers were admitted to hospitals because of severe psychological changes. Others died due to acute intoxication by repeated smoking sessions where they had consumed enormous amounts of the material. Shortly it was learnt that there were many kinds of "cocaine paste" but all were intermediate stages of the illicit preparation of cocaine hydrochloride. Chemical analysis, done at the pharmacology laboratory of the University of San Marcos, revealed that "cocaine paste" in fact contained cocaine sulphate, ecgonine, other coca alkaloids, benzoic acid, wood alcohol, kerosene, sulphuric acid and alkaline bases. The paste could be white or brown, according to the proportion of cocaine and other vegetable or chemical constituents (2). As this substance was a mixture of several materials, derived from chemical treatment of the coca leaves, we considered that it was better to call it "coca paste". The content of cocaine varied considerably from one batch to another. Our early samples contained 40 to 85 per cent cocaine (2), others found 40 to 60 per cent (3). Therefore it was obvious that cocaine was an important but not the only active substance in coca paste. However other authors had persisted in calling the material "cocaine paste" or "basic cocaine paste", contributing to the confusion created by the substance called "free base of cocaine" in the United States of America (4). Nevertheless the Southamerican coca or cocaine paste is quite different from the Northamerican free base in preparation, chemical constituents and uses.

Further experience with coca paste smokers demonstrated that there were distinct human effects associated with this form of drug taking, as well as a definite natural history, epidemiological spread and problems in prevention and treatment. In this presentation I shall summarize research done on these lines in several Southamerican countries.

The Coca Paste Syndrome

Six years ago our group (1) reported coca paste smoking in seven youngsters who also used other drugs. Two years later this form of drug taking had extended considerably in Lima (Peru) and we were able to describe the physical and mental changes observed in 158 patients of several psychiatric hospitals and psychiatric clinics (2, 5). Late in 1978 we presented in Toronto (6) a clinical study of 188 coca paste smokers who were seen in four psychiatric hospitals. Soon several other medical groups reported instances of coca paste smoking in Peru (3, 7, 8) and Bolivia (9).

In Peru the coca paste epidemic spread rapidly to the main cities and cases were found in all the regions of our country. Coca paste was also seized from traffickers who travelled to Ecuador, Colombia, Chile, Panamá and the United States of America (10, 11, 12).

Some traits found in all series were common: male smokers predominated over females, most were single, the majority began to use drugs when they were from 11 to 20 years old, and they had started to smoke paste usually after using other drugs, when they were 16 to 25 years old. A higher percentage were high school or university students, though most were dropouts. All these persons were admitted to the medical services because Coca Paste Smoking had become a serious problem for their health or for their social adjustment.

Dried coca paste was placed in the firing end of a tobacco or marihuana cigarette, where the paper was twisted and after being ignited, the smoking was done by deep and rapid puffs, to permit combustion of the material and inhalation into the lungs.

Paste-tobacco cigarettes were smoked for pleasure. Many youngsters said that they found no other drug as pleasurable as this one and perhaps this could explain why they usually took no other drugs, except alcohol, after a few smoking sessions.

Paste-marihuana cigarettes were smoked for social purposes. This combination made the subjects garrulous and sociable, enjoying company, dancing and music.

However they had to be very careful because paste could have unpleasant effects after a few cigarrettes, so when they felt rigid, shaky, anxious or dizzy, they drank some alcohol to dispel the sideeffects.

If the experience was repeated they soon found that they wanted to smoke more cigarrettes every time and they desired more frequent sessions.

The users found that after a few seconds of intense euphoria they felt anxious to smoke more. The new cigarette gave another high but soon this experience was replaced by numbness in the mouth, burning sensations in the eyes, sweating, palpitations, twitches of the muscles, shaking of the limbs, headache, hyperactivity, dizziness, colicky pains, desire to pass water or to have a bowel movement. These feelings and motor disturbances could be ameliorated by alcohol ingestion. Therefore in every session, coca paste cigarrettes were smoked between drinks of spirits or liquers.

If the individual continued to smoke then he would experience definite psychological changes: objects could be seen as very large or very small, time seemed to stop or to elapse very slowly or very quickly, shadows appeared as dangerous persons, ordinary sounds became threatening noises. Ultimately he could experience frank and horrible visual, auditory, olfactory, cutaneous or genital hallucinations. These abnormal sensations were accompanied by pathological ideas: some one wanted to kill him, take him to jail, his wife was unfaithful; animals, monsters or ghosts were after him. In these conditions the user would be held by his friends, because he might have tried to run away, made to stop smoking for a while, or drank more alcohol. Slowly he would calm down and could go home. Many stopped because there was no more paste.

In the original papers (2, 5, 6) we have described in detail the symptoms and signs of coca paste smoking. Let me summarize here two important points. First, many persons became soon compulsive users and during successive smoking sessions demonstrated four phases of mental disorder: euphoria, dysphoria, hallucinosis and psychosis.

Second, the social impact of coca paste smoking was considerable.

During the euphoria phase of consumption the users experienced excited pleasure, affective lability, hypervigilance, hyperactivity, lack of appetite and insomnia, a few reported hypersexuality. If the person titrated well his smoking, drinking alcohol between joints, he could maintain this state of elation for a few minutes. However he would easily pass to the stage of dysphoria, sometimes within seconds, where he showed considerable anxiety, smoking compulsion, sadness, apathy, aggressiveness, sexual indifference, anorexia and insomnia. This stage could be ameliorated by more coca paste smoking, where he would experience another pleasurable high, but it was not unusual to pass to the third stage. Hallucinosis was characterized by visual, tactile, auditory, olfactory illusions and hallucinations, as well as delusional interpretation, psychomotor excitement, fugue tendencies, extreme suspiciousness, sexual indifference and sometimes aggressive acts.

Hallucinosis usually lasted only for a few hours or days. In the emergency rooms of hospitals these stages were quickly terminated by tranquillizers (benzodiazepines, phenotiazines or haloperidol).

Some persons continued smoking for months or years, several times a week or every day, until they developed a persistent serious mental disorder which we have called Coca Paste Psychosis. In this condition the patient demonstrated hypervigilance, paranoid delusions (ideas of persecution, damage, death, poisoning, witchcraft or unfaithfulness), auditory and olfactory hallucinations, insomnia, aggressiveness (suicide attempts, homicide attacks, sudden assaults to friends, relations or bystanders). In this state he may die from an overdose, by suicide, by accident or during a fight.

If the psychotic patient is taken to hospital he may recover in a few weeks or months by the conventional treatment: detoxification, antipsychotic medication and psychotherapy.

The different phases of psychological disorder are associated with physical changes. During euphoria, dysphoria and hallucinosis the persons usually appear pale, thin, sweaty, shaky, with dilated pupils, high blood pressure, rapid pulse, increased temperature and rigid muscles. In serious intoxications they may present in addition: indifference, inactivity, fever, incoordination, asthma, automatisms, heart arrythmias, stupor, collapse, convulsions, neurogenic hyperventilation, respiratory arrest, heart standstill and death.

As to the frequency of these reactions we found euphoria in 89.7 per cent, dysphoria in 80.3 per cent, hallucinosis in 20.2 per cent and psychosis in 4.7 per cent of cases seen during eight years of experience.

Social Consequences of Coca Paste Smoking

The social impact of coca paste smoking was serious in the patients we studied. Of course we know that they were a selected group who had to be hospitalized because of serious physical or mental complications of this from of drug dependence. However, these individuals became so dependent on the drug that they had practically no other interest in life. They became completely deficient at work, had serious marital problems and the students failed courses or dropped out of school. If they had a job they were frequently absent from work because they did not feel well or had an overwhelming desire to procure the drug. They needed money to buy the paste, spent all their salaries and resources and, when funds became scarce, they resorted to swindling, theft, non payment of debts or drug peddling.

Some of these youngsters had been healthy and respected middle class students, professionals or employees before they began smoking paste. For us it was hard to believe to what extremes of social degradation these men and women could fall, especially those who had been brilliant students, efficient professionals or successful business people.

Soon after we published our first paper on the coca paste syndrome, other peruvian investigators confirmed our results and added observations of their own (3, 8). They postulated a natural history of coca paste dependence from patients examined at other psychiatric hospitals. Their clinical and sociological observations were almost identical to ours though Almeida insisted on considerable differences seen with other forms of use (coca chewing and cocaine snuffing). Evidently he was not familiar with the considerable mental changes that can be experimentally produced by high doses of coca chewing (15) nor with the psychotic reactions that can be induced by intemperate cocaine snorting (16). Nevertheless he confirmed that most patients would develop intense dependence after six months of coca paste smoking, which was characterized by paranoid, stuporous, cerebral and psychopathic symptoms.

Nizama was specially interested in the jargon used by coca paste smokers (17) and described the natural history of the dependence, based on the colloquial descriptions made by the smokers and the observations done by him in the hospital with some patients (8). Using this procedure he postulated 11 phases of coca paste consumption: (1) curiosity, (2) initiation, (3) pleasure; (4) group identification, (5) group prestige, (6) family isolation, (7) psychopathic conduct, (8) ritualistic behaviour, (9) dependence and tolerance, (10) general physical deterioration and (11) severe sociopathic personality deterioration. He also mentioned psychosis and death as possible outcomes. As to his description of the acute and chronic phases of intoxication, his observations are almost identical to the initial reports of other authors (1, 3, 5). He also seems unaware of the serious detrimental potential of coca chewing (15), cocaine snorting (16) and cocaine deterioration, psychosis and death (18, 19, 20, 21).

In Bolivia two investigators (9) also found that coca paste smoking produced thought acceleration, fixed ideas and marked compulsivity for using the drug. Almost immediately after use it gave paranoid thoughts with ideas of damage, especially referred to police or other agents, accompanied by intense anxiety. In 35 per cent of cases sensoperceptive disturbances were documented. They also found that 80 per cent of the patients committed impulsive acts such as thefts, swindling, selling of clothes and other items in order to buy more drug. Their conclusion was that this form of cocaine use was highly addictive, producing psychological dependence which could lead individuals to delinquency, ill health and imprisonment.

Social repercussions of coca paste smoking were not only restricted to the family or the neighbours. Coca paste became recently the main illicit drug export of Peru (22, 23, 24). The enormous profit obtained by this massive illegal traffic gave the gangs an extraordinary capacity for camouflaged legal enterprises, fast communications, sophisticated equipment to hide the drug, rapid means of transportation, modern weapons and considerable capacity for corruption.

Coca paste smuggling therefore has contributed to demoralization of several sectors of Peruvian society. Cases have been repeatedly brought to court of judges, lawyers, congressmen, physicians, politicians, police officers and civil servants because they had accepted bribes or became members of the major drug international organizations (27). Similar deplorable events have been reported in Argentina (25), Bolivia (26), Colombia (10) and Ecuador (11).

Experimental studies with Coca Paste Smokers

In order to verify the effects of coca paste smoking we began in 1978 experimental research with a group of middle class peruvian males, between 20-25 years old. None reported organic neurological problems or previous mental or nervous disorder. All were experimental paste smokers but denied dependence, declaring only occasional use. Previous to experiments they signed informed consents. The coca paste used was of an exceptionally high grade (White Paste). Subjects were instructed to smoke first at free will (1 gram paste and as many tobacco cigarrettes as they wanted to use) and later they were given uniformly prepared cigarrettes containing 100 mg of paste and 200 mg. of tobacco.

All subjects became considerably anxious when the box containing the paste was brought into the room. This nervousness became pronounced as they were preparing their first cigarettes and was evidenced by shaky hands and extremely sweaty palms and foreheads.

During the course of the experiments some subjects evidenced little anxiety or change in mood, but they smoked steadily throughout the course of the session and stopped when they felt they had enough. Others became withdrawn and would break their isolation only to express their falling of mood when they were in between cigarettes. A few subjects became garrulous, active and playful when they were smoking, but evidenced some hostility and moody ambivalence while in between cigarettes. These last subjects smoked very quickly at the onset and then voiced a desire to stop but an inability to resist smoking, experiencing extreme dysphoria at the end of the session. One subject verbalized an anguished, remorseful and fearful state, with doubts about identity and fear about his heart during a period of accelerated pulse. Another one demonstrated marked suspiciousness and hostility, resisting the

medical examinations, which he had gladly accepted at the beginning of the experiment.

All subjects developed during the smoking period increases in pulse, blood pressure, respiration, and some in temperature. All presented dilated pupils, many became shaky, showed increased muscle tone and had profuse respiration. All voiced an extreme desire for alcohol which they claimed was necessary to calm themselves, midway and throughout the session.

Blood was withdrawn from the veins of the forearm at fifteen minute intervals during the experiments. Cocaine analysis was done in duplicate using gas liquid chromatography and a nitrogen sensitive detector. We verified in all sessions the appearance of a rapid rise in plasma concentration of cocaine with levels of 0.50 to 975 ng/ml, measured within five minutes of smoking 0.5 gm. of coca paste. It was also found that the subjects became dysphoric when the concentration of cocaine in the blood was still high (13).

Even as the small total amount of coca paste smoked by the subjects can not be compared with the quantities smoked by heavy consumers, two findings were documented: (1) Coca paste smoking produced definite physiological and psychological changes. The latter modifications were euphoria, dysphoria and paranoid behavior (2). Coca paste smoking gave rise to rapid and elevated levels of cocaine in the blood, similar to what is seen with intravenous injection.

As it was difficult to administer psychological tests while repeatedly withdrawing blood from the veins of peruvian volunteers, we performed another series of experiments without blood samples. The purpose of this work was mainly to quantify the psychological changes in individuals while under the influence of coca paste. Subjects were from 19 to 35 years old, all signed informed consents. They were subjected to a complete medical record, Brief Psychiatric Rating Scale (BPRS), Addiction Research Center Inventory Profile of Mood States (ARCI), Wechsler Bellevue Adult Performance Intelligence Scale (WAIS), Modified Profile of Mood States (EDES), Basic Form of the Drug Evaluation of the World Health Organization (BFDE) and a Coca Paste Smoking Questionnaire (CPSQ). During the sessions the subjects were repeatedly interviewed individually by one of us (FRJ) applying the BPRS and they filled the Addiction Research Center Inventory (ARCI), the EDES and the Revised High Scale of Byck et al (RHS).

Subjects were placed in two rooms. In the first one they were examined every few minutes by the psychiatrist and they marked the scales. The psychiatrist was not aware of the kind of material smoked by the subjects. In the second room two physicians performed periodical medical examinations, administered the cigarettes (tobacco only or coca paste - tobacco) and observed the physical changes. No subject was aware of the type of joint smoked (tobacco or paste-tobacco).

The physiological changes, found in the previous research (13), were verified in all subjects. As to the psychological scales, BPRS showed considerable sensibility for detecting placebo smoking. ARCI and EDES rose with CP smoking. The EDES and the RHS showed significant changes towards highs, euphoria and dysphoria, during the different phases of the sessions.

In general subjects reported intense and shifting mental changes on linear and behavior scales, but each one showed different qualitative and quantitative curves, as compared with the others. Euphoria associated with anxiety was confirmed in all subjects during the high. Dysphoria and other mood changes were documented in later phases. There was considerable difference in behavior using placebo or coca paste cigarrettes (14).

Again it must be remarked that the amounts of paste smoked were relatively small, not comparable to what is usually consumed in recreational or heavy sessions. We avoided carefully the possibility of severe or psychotic reactions in our subjects.

It is unfortunate that we could not continue these experiments because of budget reductions of our sponsors. We hope that soon we shall be able to resume them.

Coca Paste Smoking Epidemiology

Two years after coca paste smoking had been mentioned in the literature (1) it was reported on the increase in Lima (28). In the same year several hundred cases associated with severe psychological disturbances were documented (2, 3, 17). One author (29) found in a psychiatric hospital a very considerable yearly increase of excessive coca paste smokers (1973 - 1977). Several other investigators had observed the same trend in general hospitals and psychiatric hospitals (2, 3, 5, 6, 8). There was also correlation with drug seizures reported by the police, here too coca paste was the main drug and the seizures were greater every year (22, 23). The number of persons apprehended while smoking coca paste in the streets, also rose regularly year after year (23, 24). Therefore it was thought rational to study this habit in the general population. We planned to investigate drug use in twelve cities of Peru but were able only to do the research in Lima. This survey was done with the purpose of establishing

use of drugs by its inhabitants aged 12 - 45. Several variables and twelve groups of drugs were researched. A special questionnaire was devised, based on previous work done in New York (30) and Mexico (31). A survey of 2167 houses of the 45 districts of the city was done (32). The investigation was carried out as an interview, taking notes of the subjects' responses and asking additional questions about drug use by persons he or she had known. Results showed that all investigated drugs were consumed in Lima by individuals of both sexes. The figures for coca were: coca leave chewers 5.4 per cent, coca paste smoking 1.3 per cent and cocaine hydrochloride users 0.7 per cent. This meant that among the population investigated (nearly three million inhabitants aged 12-45) there were 160,000 coca chewers. 39.000 coca paste smokers and 21,000 cocaine sniffers. In other words (220,000) persons used coca and cocaine in the capital of Peru. Earlier studies (33) had found that at least 13 per cent of our people chewed coca leaves, the percentage being much higher in the mountain towns, where children, adults and aged individuals use it (15, 33, 34). If we carry these figures to the current population of Peru, correcting the data from the sierra, we may conclude that at present there are three million coca chewers, 156,000 coca paste smokers and 84,000 cocaine hydrochloride users. Therefore coca and cocaine use is a serious health problem for this country, and is so for two reasons: (a) coca chewing may be detrimental to the physical and mental health of the native population (15, 33, 34, 35, 36) and (b) coca paste smoking and cocaine snorting are potentially dangerous drugs and may become severely addictive (2, 3, 8, 9, 16, 20). Of course there are many more recreational than compulsive users of cocaine.

On the other hand, Peru and Bolivia are the main exporters of coca paste and cocaine to the western hemisphere. The increase of demand creates more production. Recently it has been found that many areas of peruvian and bolivian soil previously dedicated of the cultivation of fruits, grains, tea, cacao and coffee are now used to grow the coca plant (24, 26, 37, 38). Considerable production plus strengthening of repressive measures may create a local overstock which could be diverted to internal consumption. Probably this is one of the conditioning factors of coca paste smoking in Peru, Bolivia, Ecuador and Colombia. Excess of cocaine in any country tends to increase use even if its illegal export may be an important business enterprise of a considerable sector of the population (22, 23, 24, 26). Coca paste in the past was exported to other countries (Ecuador, Chile, Colombia, USA) to be transformed into cocaine hydrochloride and sent thus all over

the world. Now it is not only exported but sold by thousands of peddlers in every city and town of Peru, and it is smoked by people of all ages, in the middle and lower social classes. The rich and the well to do prefer cocaine hydrochloride, as in most other countries.

Coca leaves, coca-paste and cocaine compared

In the course of a hundred years there have been advocates of coca and cocaine in many national and international meetings. Freud was a cocaine eater for some time and he was also in favour of the coca leave (39, 40). Even today we find ardent defenders of coca chewing arguing that it is excellent for physical, psychological and sociological ailments (41, 43). There are also champions for cocaine and extraordinary mass media promotion of this commodity (44). Coca paste has few defenders.

Let me analyze succinctly the effects of these three preparations as described in the experimental setting. Coca chewing is dose related and produces slight dilatation of pupils, moderate increase of respiratory rhythm, increase of blood pressure and definite acceleration of heart rate. Spinal and autonomic reflexes are stimulated and cutaneous sensibility diminishes. Thirst, hunger and fatigue are suppressed. If chewing is excessive, acute toxid manifestations are observed such as disturbances of perception, delusions and hallucinations. When it is used for a long time children show considerable learning disabilities (15). In adults intelligence is impaired (34, 35, 36). Although the coca leaf has fourteen alkaloids and many other chemical substances, it has been demonstrated that the physical and mental changes are mainly due to the presence of cocaine in the blood (45, 46). Coca paste smoking is also dose related. The physical and psychological changes are much more marked than what is seen with coca chewing. Even one cigarette produces definite modifications in the experimental laboratory. It has been documented that these changes are associated with considerable amounts of cocaine in the blood (13, 47).

Cocaine hydrochloride eaten, snorted, applied to the mucous membranes (ear, nose, eye, urethra) or injected subcutaneously, intramusculary or endovenously has the same dose related effects. In small doses it produces stimulation of nervous and mental activities. With increasing doses it gives rise to marked physiological changes and unpleasant psychological disturbances (depression, insomnia, suspi ciousness, abnormal ideas, hallucinations and finally frank paranoid thought). These manifestations are also seen with heavy or compulsive coca paste smokers.

Acute cocaine intoxication is characterized by a rapid progression of anxiety, sudden fainting, extreme pallor, breathlessness, generalized convulsions, arrest of respiration and death in a few minutes (21). Recently we have seen these reactions in three patients who died while being rushed to hospital after smoking coca paste for several days. They had been in this habit for several years.

It is well known that in humans cocaine tolerance develops. In Peru this drug can be consumed in very considerable amounts, much larger quantities than what is customary in the USA (48, 49, 50). For instance, one patient (16) said that he inhaled up to 15 gms. of cocaine daily and developed three prolonged periods of psychotic breakdown. Our patients smoked paste several times a week, at an average of 3 to 5 gms. per session. Heavy users assure us, and other investigators, also, that they smoke 40-60 gms. per run (2, 3, 5, 9). One individual told us that he had smoked 300 gms. in four days but we doubt that this really happened (2). In the experimental sessions we have seen that skilled smokers prepared one joint with about 300 mgs. of paste (13, 47). The effects produced by smoking these cigarettes were very marked. In our second experimental design joints were prepared with 100 mgs. of paste and the effects were correspondently minor (14).

Considering the chemical differences, ways of penetration to the body and dose of the material: coca chewing, paste smoking and cocaine injection or ingestion produce similar changes in humans. With small doses the stimulating effects predominate, with larger doses the unpleasant ones. In some individuals a severe psychological dependence develops to coca paste, as also happens with cocaine hydrochloride. Coca paste smoking induces physical and psychological changes as quickly as the endovenous injection of cocaine (13, 47). This is not surprising because cocaine has been found in the blood of consumers while chewing coca, smoking coca paste or using cocaine hydrochloride in the preferred way (13, 45, 46, 51, 52, 53). Several investigators confirmed in the laboratory that cocaine psychological changes are dose induced (14, 55). The disposition of cocaine by the human body has a pronounced dose dependence over the dose ranges studied. At a dose of 1 mg/kg the plasma clearance of cocaine is 1.8 1/kg per hour, while for a dose of 3 mg/kg it is 0.5 1/kg per hour. Thus at the higher dose the body is only 28% as efficient at clearing cocaine from the body volume. Clearing is via the urinary and metabolic pathways (54). In Peru heavy users of cocaine administer themselves much higher doses than 3 mg/kg which probably causes a more marked

reduction of plasma clearance. This mechanism could explain deaths produced by intestinal absorption in smugglers who swallow plastic bags filled with cocaine.

What have we learnt about the Coca Paste Epidemic?

Let me begin saying that we still have much to learn from this form of drug abuse. We practically saw the birth of this epidemic under our very eyes about ten years ago. In a decade it has spread throughout the country and has extended to Bolivia, Ecuador, Colombia and perhaps other Southamerican countries. In the first clinical report (56) about drug use by high school and adolescent youth in Peru, we saw not one patient who had smoked coca paste. A few years later hundreds of clinical cases were reported (2, 3, 5, 6, 7, 8, 9) and these data were confirmed by population sample surveys, (32), arrests (22, 23), deaths (57) and treatment results (27, 58).

This epidemic began by peer influence. In 1966 foreign youngsters instructed peruvian youth to the use of several drugs fashionable at the time (marihuana, LSD, haschich, amphetamines), Shortly afterwards the foreigners learnt about coca paste (which was rich in cocaine and relatively inexpensive) and probably induced peruvians to smoke it. By trial an error they learnt to ignite the material, as they had done with cannabis. This habit created a national boom of selling paste, which was practiced by small merchants. The big organizations relied on the export of coca paste and cocaine hydrochloride. Here some general principles were confirmed: the epidemic depended on availability of the drug, the favourable disposition of certain groups of individuals, and conditions in the Latin-American society which permitted its rapid and generalized spread.

All statistics show that after 1970 the production of illegal coca paste and cocaine has increased considerably every year. Now it is not unusual for the police or customs officers to confiscate cargos of 1000 pounds or more of coca paste in one operation. The increased demand had created a major production. The same thing happened in Bolivia, the other coca producing country in South America.

The individuals prone to use coca paste were at the beginning high school youngsters. The habit soon extended to other groups: university students, young white and blue collar workers, professionals and finally middle aged men an women.

To become a coca paste dependent smoker contributed certain personal traits: rebelliousness, early smoking of tobacco and marihuana; absenteeism, bad behavior or learning difficulties at school; other psychological disturbances, such as low intelligence, neurological disease or personality defect. However some dependents were normal young people before

they started to smoke coca paste (1, 2, 5, 6). Social factors were important in the development of dependence. It was found that the group pressure was very considerable (2, 3, 6, 8) and later in the epidemic it was seen that it took with great force among the children of broken homes, the unemployed, the criminals, the slum dwellers and the sociopaths. As a large majority of the peruvian population live in great poverty, drug taking is always a considerable risk.

Later the coca paste habit became part of the cocaine boom. Now it is not only valuable abroad but also in Peru and Bolivia. Business became prosperous and drug crimes increased markedly in Peru. I have already mentioned the social demoralization and corruption produced in Peru, Bolivia, Ecuador, Colombia, Canada, Venezuela, Mexico and the United States of America, in relationship to coca paste and cocaine illegal transactions.

We have not been able to do longitudinal epidemiological studies. But I can say that trends are changing. Two recent observations are as follows: (a) Coca paste smoking now is prevalent in lower social classes, slums and jails. (b) Coca paste smoking now is seen also among middle aged men and tends to disminish in youngsters when they have access to cocaine.

Finally, let me tell you that it seems impossible to erradicate the coca plantations. Instead of diminishing they grow larger every year. The money earned by the growers is many times more than what they can get from any other cultivation. On the other hand, the cocaine demand in the world is also increasing continuously. Some propose for this reason decriminalization of the cocaine market. I do not think that this is the solution of the problem. However these are problems that must be studied and solved before the damage to society becomes hopeless.

Prevention, Treatment and Rehabilitation

Preventive measures have been adopted in most latin American countries in keeping with international and South American Conventions and Agreements. Drugs, including coca paste, are controlled and restricted by the police, customs and health authorities.

Action has been taken also in school and communities in order to detect children and adolescents at risk and refer them to teachers specialized in learning or behavior disturbances. These groups are associated with psychological centers where proper orientation and treatment facilities are offered.

Isolated voluntary groups act in slums and deprived areas. Their modes of action or results in preventing cocaine abuse have not been published. I have the impression that there is need of more technical direction and government coordination in these areas.

Several types of treatment have been employed in coca paste addiction. There are some recreational and regular users who are acceptably integrated in the communities and do not need treatment. The patients seen in the psychiatric services usually are the more chronic, resistant or relapsing. In this group treatment results are not encouraging. Relapses occur with conventional medico-psychological treatment in about 50 per cent of cases (58, 59, 60) Better results have been obtained, in the worst cases, by selective operations on the brain (bilateral anterior cyngulactomy). The authors (61) have reported good results in 82.3 per cent of the patients operated upon. All series comprise a limited number of coca paste addicts and the follow up is relatively short (from a few months to one year).

There is a Center for Rehabilitation in the outskirts of Lima (Ñaña) where coca paste dependents stay for three to six months. The attending staff has not published yet results of rehabilitation.

REFERENCES

- Jerí, F.R.; Sánchez, C. & Del Pozo, T. Consumo de Drogas Peligrosas por miembros y familiares de la Fuerza Armada y Fuerza Policial Peruana. Rev. Sanid. Polic. (Perú) 37: 104-112, 1976.
- Jerí, F.R.; Sánchez, C.; Del Pozo, T. & Fernández, M. El Síndrome de la Pasta de Coca: Observaciones en un grupo de 158 pacientes del área de Lima. Rev. Sanid. Min. Int. (Perú) 39: 1-18, 1978.
- 3. Almeida, M. Contribución al estudio de la historia natural de la dependencia a la pasta bási-

ca de cocaína. Rev. Neuropsiquiat. (Lima. Perú) 41: 44-55, 1978.

- Siegel, R. Cocaine: Recreational use and Intoxication. NIDA Research Monograph N^e 13, pp. 119-136, Rockville, Maryland, 1977.
- Jerí, F.R.; Sánchez, C.; Del Pozo, T. & Fernández, M. The Syndrome of Coca Paste. J. Psychedelic Drugs 10: 361-370, 1978.
- Jerí, F. R.; Sánchez, C.; Del Pozo, T.; Fernández, M. & Carbajal, C. Further Experience with the syndromes produced by Coca Paste Smoking. Bull. Narcotics 30: 1-11, 1978.

- Sánchez, E. Algunos aspectos epidemiológicos de la dependencia a la pasta básica de cocaína. Rev. Neuropsiquiatría (Lima, Perú) 41: 77-82, 1978.
- Nizama, M. Síndrome de la Pasta Básica de Cocaína. Fenomenología clínica, historia natural y descripción de la subcultura. Rev. Neuropsiquiat. (Lima, Peru) 42: 114-134 and 185-208, 1979.
- Aramayo, G. & Sánchez, M. Clinical Manifestations using Cocaine Paste. Cocaine 1980, pp. 120-126, Pacific Press. Lima, Peru, 1980.
- Estupiñan, L.F. & Tamayo, H. Differential Study between Coca and Cocaine in Colombia. Cocaine 1980, pp. 175-184, Pacific Press, Lima, Peru, 1980.
- Donoso, H. Coca use in Ecuador. Cocaine 1980, pp. 188-190, Pacific Press, Lima, Peru.
- Mas, M.R. General Aspects on Licit Control, Undue Use and Illicit traffic of Cocaine in Chile. Cocaine 1980, pp. 185-187, Pacific Press, Lima, Peru, 1980.
- Paly, D.; Van Dyke, C.; Jatlow, P.; Jerí, F.R. & Byck, R. Cocaine: Plasma levels after Cocaine -Paste Smoking. Cocaine 1980, pp. 106-110, Pacific Press, Lima, Peru, 1980.
- García, F.; Durand, J.; Jerí, F.R. & Byck, R. Experimental Psychological changes during Coca Paste Smoking. Rev. Sanid. Fuerz. Polic. 43: 55-60, 1982.
- Gutiérrez-Noriega, C. Alteraciones Mentales producidas por la Coca. Rev. Neuropsiquiat. (Lima, Perú) 10: 145-176, 1947.
- Carbajal, C. Psychosis produced by Nasal Aspiration of Cocaine Hydrochloride. Cocaine 1980, pp. 127-133, Pacific Press, Lima, Peru, 1980.
- Nizama, M. Jerga utilizada por los consumidores de drogas. Rev. Sanid. Minist. Interior (Lima-Peru) 39: 175-191, 1978.
- Grispoon, L. & Bakalar, J.B. Cocaine: A Drug and its Social Evolution, New York, N.Y., Basic Books, 1976.
- Post, R.M. Cocaine Psychosis: A Continuum Model. Am. J. Psychiat. 132: 225-231, 1975.
- Smith, D.E. & Wesson, D.R. Cocaine, in Cocaine 1980, pp. 49-61, Pacific Press, Lima, Peru, 1980.
- Finkle, B.S. & Mc Closkey. The Forensic Toxicology of Cocaine. NIDA Research Monograph Series N^o 12, pp. 153-178, Rockville, 1977.
- Ramírez, Y. & Ruiz, P. The Illicit Traffic and Undue Use of Coca and Cocaine in Peru in 1978. Cocaine 1980, pp. 196-201, Pacific Press, Lima.
- Llanos, R. Datos estadísticos sobre detenciones y decomisos por tráfico ilícito de drogas. Rev. Sanid. Fuerz. Polic. (Lima, Peru) 41: 165-168, 1980.
- Rojas, R.; Alva, V.; Díaz, J.; Vargas, D. & Cano, J. Acción de la Guardia Civil en la prevención y educación relativas al uso y abuso de drogas. Rev.. Sanid. Fuerz. Polic. (Lima, Peru) 41: 169-176, 1980.
- Farías, A. Our Experience on the Customs Control of Illicit Coca Traffic. Cocaine 1980, pp. 147-149, Pacific Press, Lima, Peru.
- Cagliotti, C.N. La Economía de la coca en Bolivia. Rev. Sanid. Fuerz. Polic. (Lima, Peru) 42: 161-165, 1981.
- Jerí, F.R. Fármacodependencia en el Perú. Evaluación de Programas Preventivos y Asistenciales. Rev. Neuropsiquiat. (Lima, Peru) 44: 43-61, 1981.
- 28. Mariátegui, J. Epidemiología de la Fármaco-

dependencia en el Perú. Rev. Neuropsiquiat. (Lima) 41: 28-43, 1978.

- Sánchez, E. Algunos aspectos epidemiológicos de la dependencia a la pasta básica de cocaína. Rev. Neuropsiquiat. (Lima) 41: 77-82, 1978.
- Ellinson, J. A Study of teen-Age Drug Behavior. Final Report. Center for Socio Cultural Research in Drug use, Columbia University, New York, 1977.
- Castro, M.E. & Valencia, M. Estudio sobre el uso de drogas y problemas asociados en una muestra del Estado de Morelos. Salud Mental (Mex) 2: 2-8, 1979.
- Carbajal, C.; Jerí, F.R.; Sánchez, C.; Bravo, C. & Valdivia, L. Estudio Epidemiológico sobre uso de Drogas en Lima (1979). Rev. Sanid. Fuerz. Polic. 41: 1-38, 1980.
- 33. Thays, C. Informe sobre la masticación de la hoja de coca en el Perú. Min. Salud, Lima, 1968.
- 34. Gutiérrez, C. & Zapata, V. La inteligencia y la personalidad en los habituados a la coca. Rev. Neuropsiquiat. (Lima, Perú) 13: 22-60, 1950.
- 35. Negrete, J.C. & Murphy, H.B. Psychological deficit in chewers of coca leaf. Bull. Narcotics 19: 11-17, 1967.
- 36. Goddard, D. & Goddard, S. The Social Conditioning of the Use of Coca amog Field Labourers in Northern Argentina. Report to the W.H.O., 1967.
- Rabaj, S. & Campos, V. Profiles of the Problems of Coca in Bolivia. Cocaine 1980, pp. 154-158, Pacific Press, Lima, 1980.
- Sandagorda, A.E. Coca production in Bolivia. Cocaine 1980, pp. 165-169, Pacific Press, Lima, 1980.
- 39. Freud, S. On Coca Centralb f. die ges therapie 2: 289-314, 1884.
- Freud, S. Bemerkungen über Cocainfurdit mit Bezickung cinem Vortrag W.A. Hammond's. Weiner Medizin. Wochensch. 28: 929-932, 1887.
- Carter, W.; Parkerson, P. & Mamani, M. Traditional and changing patterms of Coca Use in Bolivia. Cocaine 1980, pp. 159-164, Pacific Press, Lima, 1980.
- Castro, R. Coca and Life at Great Altitudes. Cocaine 1980, pp. 220-225, Pacific Press, Lima, 1980.
- Cabieses, F. Aspectos Etnológicos de la Coca y de la Cocaína. Cocaína 1980, pp. 282-295, Pacific Press, Lima, 1980.
- Crowley, A. Cocaine, Lovel Press, San Francisco, 1973.
- Paly, D.; Jatlow, P.; Van Dyke, C.; Cabieses, F. & Byck, R. Plasma levels of Cocaine in Native Peruvian Coca Chewers. Cocaine 1980, pp. 86-89, Pacific Press, Lima, 1980.
- Holmstedt, B.; Lindgren, J.E.; Rivier, L. & Plowman, T. Cocaine in blood of coca chewers. J. Etnopharmacol. 1: 69-78, 1979.
- Paly, D.; Jatlow, P.; Van Dyke, C.; Jerí, F.R. & Byck, R. Plasma Cocaine Concentrations during Cocaine Paste Smoking. Life Scien. 30: 731-738, 1982.
- Byck, R. & Van Dyke, C. What are the Effects of Cocaine in Man? Cocaine 1977, pp. 97-117, Rockville, Maryland, 1977.
- 49. Siegel, R.K. Cocaine Hallucinations. Am. J. Psychiat. 135: 309-314, 1978.
- 50. Wesson, D.R. & Smith, D.E. Cocaine: Its Use

for Central Nervous system stimulation including recreational and medical uses. Cocaine 1977, pp. 137-152, Rockville, Maryland, 1977.

- Van Dyke, C.; Barash, P.G.; Jatlow, P. & Byck, R. Cocaine: Plasma concentrations after intranasal application in man. Science 191: 859-861, 1976.
- Javaid, J. I.; Fischman, M.W.; Schuster, C.K.; Dekirmenjian, H. & Davis, J.M. Cocaine plasma concentration: relation to physiological and subjective effects in humans. Science 202: 227-228, 1978.
- Van Dyke, C.; Jatlow, P.; Ungerer, J.; Barash, P.G. & Byck, R. Oral Cocaine: plasma concentration and central effects. Science 200: 211-213, 1978.
- 54. Barnett, G.; Hawks, R. & Resnick, R. Cocaine Pharmacokinectics in Humans. J. Ethnopharmacology 3: 353-366, 1981.
- Fishman, M. & Schuster, C.R. Cocaine Effects in Sleep-Deprived Humans. Psychopharmacology 72: 1-8, 1980.

- Jerí, F.R.; Carbajal, C. & Sánchez, C.C. Uso de Drogas y alucinógenos por adolescentes y escolares. Rev. Neuropsiquiat. (Lima-Perú) 34: 243-271, 1971.
- Lizano, J. & Revoredo, J. Las Muertes por envenenamiento en Lima. Rev. Sanid. Fuerz. Polic. (Lima, Perú) 42: 26-47, 1981.
- Navarro, R. Modificación de la conducta adictiva. Tratamiento y seguimiento de dos casos de adicción a la PBC. Rev. Neuropsiquiat. (Lima-Perú) 41: 83-91, 1978.
- Sánchez, E. Sistemas de Tratamiento y Rehabilitación de Fármacodependientes. IV Nat. Psychiat. Congress, Lima, Peru, 1980.
- Gribenow, W.; Sánchez, E.; Navarro, R. & Peña, S. Psicoterapia de grupo en Fármacodependencia. IV Nat. Psychiat. Congress, Lima, Peru, 1980.
- Llosa, T. & Hinojosa, H. Cingulectomía en la Fármacodependencia a la Pasta Básica de Cocaína, in the press.

for Central Nervous system stimulation including recreational and medical uses. Cocaine 1977, pp. 137-152, Rockville, Maryland, 1977.

- Van Dyke, C.; Barash, P.G.; Jatlow, P. & Byck, R. Cocaine: Plasma concentrations after intranasal application in man. Science 191: 859-861, 1976.
- Javaid, J. I.; Fischman, M.W.; Schuster, C.K.; Dekirmenjian, H. & Davis, J.M. Cocaine plasma concentration: relation to physiological and subjective effects in humans. Science 202: 227-228, 1978.
- Van Dyke, C.; Jatlow, P.; Ungerer, J.; Barash, P.G. & Byck, R. Oral Cocaine: plasma concentration and central effects. Science 200: 211-213, 1978.
- Barnett, G.; Hawks, R. & Resnick, R. Cocaine Pharmacokinectics in Humans. J. Ethnopharmacology 3: 353-366, 1981.
- Fishman, M. & Schuster, C.R. Cocaine Effects in Sleep-Deprived Humans. Psychopharmacology 72: 1-8, 1980.

- Jerí, F.R.; Carbajal, C. & Sánchez, C.C. Uso de Drogas y alucinógenos por adolescentes y escolares. Rev. Neuropsiquiat. (Lima-Perú) 34: 243-271, 1971.
- Lizano, J. & Revoredo, J. Las Muertes por envenenamiento en Lima. Rev. Sanid. Fuerz. Polic. (Lima, Perú) 42: 26-47, 1981.
- Navarro, R. Modificación de la conducta adictiva. Tratamiento y seguimiento de dos casos de adicción a la PBC. Rev. Neuropsiquiat. (Lima-Perú) 41: 83-91, 1978.
- Sánchez, E. Sistemas de Tratamiento y Rehabilitación de Fármacodependientes. IV Nat. Psychiat. Congress, Lima, Peru, 1980.
- Gribenow, W.; Sánchez, E.; Navarro, R. & Peña, S. Psicoterapia de grupo en Fármacodependencia. IV Nat. Psychiat. Congress, Lima, Peru, 1980.
- Llosa, T. & Hinojosa, H. Cingulectomía en la Fármacodependencia a la Pasta Básica de Cocaína, in the press.

Experimental psychological changes recorded during cocaine paste smoking

F. RAUL JERI,* ROBERT BYCK,** JAIME DURAND*** AND FERNANDO GARCIA***

SUM MARY

A group of six male, healthy, adult volunteers, who were habitual users of cocaine, smoked freely cocaine (coca) paste cigarrettes in an experimental setting. The cigarrettes were prepared with a mixture of tobacco and paste containing 93 per cent cocaine. All subjects showed considerable cardiovascular changes during the experimental sessions. Modifications were also documented by several linear scales, Brief Psychiatric Rating Scale, the Drug Effect High Scale and the Addiction Research Center Inventory. The changes observed could be described as euphoric and dysphoric. The total amount of cocaine paste smoked during the sessions was relatively small, according to street use, therefore hallucinosis and psychosis were not observed in the experimental subjects.

It is concluded that cocaine paste smoking, even in moderate amounts, produces measurable physiological and psychological changes.

INTRODUCTION

Cocaine Paste Smoking (CPS) has been observed in young adults in Peru, associated with severe acute and chronic mental changes, high relapse rates and the need of prolonged psychiatric treatment.^{1,5} Cocaine paste smoking permits a fast distribution of the drug and high cocaine blood levels^{6,7} which are reached faster than what is found with intravenous administration of cocaine.⁸

This study was done with the purpose of quantifying mental changes in a group of experimental subjects during the influence of cocaine paste smoking. While psychological observations of chronic or recreational users of cocaine paste have been reported before^{1.3} no one has attempted to measure psychological changes during smoking sessions. These learned experiences and our observations may have some therapeutic implications.

METHOD

Adult Human males, frequent CP smokers, proven by both personal history and reports from friends, were met in their usual gathering place, asked to participate in the study and were seen during two preliminary sessions at the laboratory.

On the first session subjects aged over 18 (legal

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adult age in Peru) were given an initial interview, where after a thorough explanation of the study project, which comprised their responsibilities, the purpose of the investigation, rules and regulations, medical services provided, payment for participation and protection from legal harassment, they were asked to participate as test subjects. The real names and addresses of the volunteers were not used by the examiners. Instead subjects elected some proper name to recognize each other. These names were used during the tests.

An experimental setting was provided by the University of San Marcos, at the Hospital Dos de Mayo, near the Emergency Rooms. The setting was clean, well lighted, free of external stimuli, quiet and secure. At least one physician was present during all phases of the investigation to assure safety for subjects, during the experimental sessions, and at least 100 minutes after smoking the last cocaine paste cigarrette. Emergency medical services were available during the experiments. Subjects were not permitted to leave the laboratory unless certified in good condition by one of the physicians who were in charge of the physical and psychological immediate follow up.

After the initial interview the subjects read and signed an Informed Consent Form, answered the World Health Organization (WHO) Drug Use Questionnaire and a CPS questionnaire developed by us. They also were given a complete physical examination, a Brief Psychiatric Rating Scale Interview (BPRS) and the Performance Part of the Wechsler-Bellevue Adult Intelligence Scale (WAIS).

They also familiarized themselves with the laboratory and the experimental procedure, read the

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Anxiety Speed Scale (AS), the Positive-Negative Scale (PN), the Subjective Drug Effect High Scale (SDE), the Alcohol Desire Scale (AD) and the Addiction Research Center Inventory (ARCI). A urine sample was taken in this session.

The second session was held in the same place. They were given the scales, answering questions they asked about the tests and had a few soft drinks.

In the experimental sessions the subjects came without having taken any drug for the last 24 hours. In one room a psychiatrist, who did not see the subject during the experiments, except for this sche duled interview, took the Brief Psychiatric Rating Scale (BPRS). In the other air conditioned room two physicians documented the physical changes, administered the linear scales, the SDE and the ARCI and made appropiate annotations.

Cigarrettes were prepared with 400 mg. local commercial cigarrette tobacco, mixed homogeneously with 200 mg. of cocaine paste (93% cocaine according to chemical analysis done in the Toxicology Department of San Marcos University). Placebo cigarrettes were prepared without cocaine. Cigarrettes were presented to the subjects ten minutes before the smoking period. Placebo smoking was decided by one of the physicians just before one experiment was run. Placebo smoking lasted 15 minutes and then the subject was given cocaine paste cigarrettes. No one else knew which cigarrettes were placebo and which contained cocaine paste.

At an established time schedule, during the smoking period, linear scales, ARCI, SDE, BPRS, were administered and Blood Pressure (BP) and heart rate (HR) were taken. Four linear scales were used to record the subjects' changes: the Anxiety-Speed (AS), the Positive Negative (PN), the Subjective Drug Effect (SDE) and the Alcohol Desire (AD) linear scales. SDE and ARCI were given after BPRS at 15 minutes intervals, during smoking periods, and after 30 and 60 minutes of the last cigarrette.

During the experiment the subjects were permitted to drink water or a soft drink, they could use the bathroom and while seated they had a note in front of them stating: "You can smoke all the cigarretes you want, whenever you want them".

RESULTS

In the first session the subjects appeared clinically normal, could follow instructions, answered the questionnaires, signed the Consent Form and showed normal intelligence, except subject Oscar who had an IQ of 76.

There was a minimal elevation of HR while the cigarrettes were shown and while smoking placebo for fifteen minutes. During CP smoking peak HR

A	B	LE	I

DETECTION CP SMOKING WITH BPRS DURING FIRST 15 MINUTES

uring first 5 minutes	during first 15 minutes
2	3
	0
	5 minutes 2 2

rose 57 per cent in relation to the normal state. Peak rates occurred generally during the first 15 minutes but shifted in relation to the smoking patterns. HR returned to normal in 40 to 60 minutes after smoking was stopped. In some subjects there was a late rise in HR.

BP remained the same with the exposure of cigarrettes as with placebo smoking. There was systolic and diastolic rise in BP while smoking cocaine paste, peak rises were 53 per cent, and in some cases there was a broadening of the pulse pressure. The peak BP was not always in the first 15 minutes of CP smoking and shifted with smoking pattern. In four subjects BP did not come to normal 90 minutes after smoking was stopped.

Subject Miguel experienced headache and hypertension smoking only 3 cigarrettes and Bruno showed reduced BP while smoking.

BPRS was sensitive for detecting placebo smoking and was also able to point out CP smoking during the first 15 minutes of the smoking period. In two subjects BPRS showed moderate changes during placebo smoking but these changes were coasiderably increased when the subjects began to smoke CP cigarrettes.

Linear scales curves appeared different in all subjects. In one instance we repeated the experience

TABLE II

CHANGES IN THE DRUG EFFECT HIGH SCALE (SDE) DURING SMOKING CP

Item	N ² Subjects shifting significatibly
Lively	4
Tense	6
Friendly	5
Impatient	4

CORRELATION BETWEEN EDES MAXIMUM OR MINIMUM MARKS AND PN LINEAR SCALE AT THE SAME TIME IN EACH SUBJECT

	Positive	Negative	Not Changing P-N Linear Scale
Cases 11	4	7	

with the same subject (Juan Carlos) and the linear scales curves were qualitatively similar (see graph). Alcohol Desire curves related better to double vectorial linear scales. AS and PN curves, BPRS and ARCI rose with CP smoking. BPRS correlated with ARCI and monovectorial linear scales, as well as subjective drug effect (SDE) and alcohol desire (AD). SDE showed items 3, 18, 1 and 24 the more sensitive. These items changed more than two degrees in comparison with the other items, but there was not a fixed pattern of change in all subjects on those items.

If one assumes that lively and friendly are a positive state, and tense and impatient a negative one, there was correlation between EDES maximun and minimun marks and PN linear scale, at the same times, in the same subject. This argues for an internal language consistency in the subjects as well as a definite change on those moods by cocaine paste smoking.

Most subjects smoked cocaine paste cigarrettes cautiously. They noticed that the paste was very rich in cocaine, made comments about it and smoked less cigarrettes and at a longer time, in comparison with a previous set of experiments.⁶

DISCUSSION

We have observed CP smoking in the experimental setting using only cigarrettes which contained tobacco and cocaine paste. It is well known that CP smoking is generally done while drinking alcohol or smoking marihuana. The frequent markings of alcohol desire on the ARCI, during the first preexperimental trials, induced us to introduce the alcohol linear scale as one of the parameters.

The way the cigarrettes were prepared was not the usual one either. In the recreational setting the subjects generally place the drug mixed with a little tobacco on the tip of a common cigarrette, while in these sessions we mixed homogenously the CP throughout all the length of the cigarrette. This was recognized by the subjects as disagreeable because they had to smoke a lot of tobacco in order to feel "the rush". Subjects smoked voluntarily but still, during the experiments we noticed that they did not smoke as many cigarrettes as they had reported in their recreational sessions. Therefore we had to exert some pressure by being present during all the smoking time and by placing the note, already mentioned, before them.

Seriously disrupting mental changes have been described in CP smokers.^{1,3,11,13} This work was planned to study psychological alterations while smoking moderate amounts of cocaine paste. The lack of considerable modifications in our setting could be due to the absence of alcohol or other drugs in our study or to the little amount of drug relative to what they usually smoke. The socio psychological background of the subjects during their recreational sessions, and the socio-cultural stress under which these persons are subjected, while smoking cocaine paste heavily in the street, must also be taken in consideration.

The stressing cardiovascular effects of CP plus tobacco smoking was primarily produced by cocaine. The higher HR and BP we observed probably was mediated through a higher autonomic neurotransmitter activity, but the increased pressure pulse could also be explained, at least in part, as due to the effect of nicotine.

Cocaine blood levels were not taken in these opportunities as they could have changed the psychological data. However the cardiovascular effects of smoking indicated that the subjects were smoking cocaine even though these were not their greatest smoking sessions.

Subjects reported intense end shifting mental changes on linear scales. Each one showed a different qualitative and quantitative curve, but we were somewhat surprised with the similar qualitative curve demonstrated by Juan Carlos, when he repeated the smoking session two weeks later.

The meaning of the double vectorial scales as well as the interpretation by the subjects of the AS and PN linear scales were somewhat confusing for them, still they reported fast and potent changes during cocaine paste smoking. Any change in the double vectorial curves from the enjoyable to the not enjoyable side, seemed to trigger alcohol desire.

EDES cluster analysis could not be done by us, our simple analysis showed four items frequently changing without a consistent fashion. The ARCI and BPRS were sensitive to CP smoking. BPRS correlated well with ARCI and with the reported subjective drug effect during smoking time. After smoking was stopped in some subjects BPRS and linear scales showed activity for more then 30 minutes. Linear scales demonstrated a dysphoric state returning to normal before they finished the experiment.

In general our subjects smoked a relatively small amount of cocaine paste cigarrettes during the ex-

PHYSIOLOGICAL AND PSYCHOLOGICAL CHANGES DOCUMENTED DURING COCAINE PASTE SMOKING



Variables recorded were: Anxiety State Scale (AS), Positive-Negative Scale (PN), Drug Effect High Scale (SDE), Alcohol Desire Scale (AD), Brief Psychiatric Rating Scale (BPRS), Addiction Research Center Inventory (ARCI), Heart Rate (HR), Blood Pressure (BP) and Time in minutes (T).

periments (3 to 11). If we consider that each cigarrette contained 200 mg. of cocaine paste and that most of the alkaloid is inactivated by burning the tobacco-paste mixture, it is not surprising that we did not witness serious mental changes in the volunteers. However, most of them experienced a rapid high followed almost immediatly by dysphoric manifestations (anxiety, breathlessness, apathy, sadness, anorexia, excitement, tremor, uncooperativiness). No hallucinatory or paranoid ideation was reported by these individuals during the experiments.

They commented on the need to drink alcohol while smoking cocaine paste. Done in this way they would smoke much more and would have enjoyed better the experience, they said. Also we assume that they would have more marked mental changes, as reported with heavy users or cocaine paste dependent patients.^{1,3,11,13}

There are few reports in the literature about experimental investigations using cocaine hydrochloride. Fishman et al14 studied 4 male subjects aged 21-35 with cocaine hydrochloride in doses ranging from 4 to 32 mg. intravenously as well as with 10 mg. of dextro-amphetamine sulfate. Measures of cardiovascular and subjective effects were made. Generally parallel dose-effect functions were obtained for heart rate, blood pressure, Addiction Research Center Inventory score, Profile of Mood States and five ratings. A substantial effect on each of these variables was recorded after 8 mg. of cocaine. The increased effect continued and peaked at approximately 16 mg. after which it usually leveled off. Ten mgs. of dextroamphetamine had an effect comparable to 8-16 mg. of cocaine.

Resnick, Kestembaum and Schwartz¹⁵ investigated the effects of intranasal and intravenous cocaine in 19 healthy volunteers. Placebos were also used. Using intranasal route 10 mg. of cocaine could not be differentiated from placebo. A dose of cocaine of 25 mg. produce physiological changes in heart rate, systolic and diastolic blood pressure, subjective changes (high, well being and anorexia) were felt with small doses (10-15 mg.) of cocaine. When doses were increased (25-60 mg.), using intranasal routes of administration, the subjective effects were dose related. The effects were more marked with intravenous injection. We also documented^{6,7} physiological and psychological changes while smoking cocaine paste but as the withdrawal of blood for cocaine analysis was very disturbing to the subjects, it was decided to record psychological observations while smoking, without any other physical distraction or

annovance. Fishman and Schuster⁹ tested eight normal healthy volunteers in a reaction time task and a work-out-put after 24 hours and 48 hours of sleep deprivation with and without 96 mg. of inhaled cocaine. Cardiovascular changes and verbal report of mood change and drug effect were also monitored. The physiological tests used were the Profile of Mood States (POMS) and the Addiction Research Center Inventory (ARCI). Sleep deprivation produced a decrement in reaction-time performance which was reversed by inhalation of cocaine. Heart rate increased after cocaine both under non sleepdeprived conditions and sleep-deprived conditions. The magnitude of the drug induced heart rate was, however, lower when subjects were deprived of sleep for 48 hours. Verbal reports of cocaine effects were similar to those reported for amphetamine, with no evidence supporting the idea of a post drug depression immediately after the accute effects of the drug were dissipated, although some rebound effects were noted 8 hours after drug administration. Clinical investigations of smoking free base cocaine also demonstrate intense physical and psychological changes.8

The previous reports and our work demonstrated that the physiological and psychological changes observed while smoking cocaine paste or cocaine base, inhaling cocaine, injecting cocaine intravenously or ingesting cocaine, are similar, dose proportioned and also related to the route of administration. The effects of free base or cocaine paste smoking are immediate and intense and are felt faster than with intravenous injection of cocaine.

The neuropsychological modifications documented during cocaine paste smoking are probably related to norepinephrine reuptake and redistribution at upper brain stem, hypothalamus and cortical levels.¹⁶ The early catecholamine theories of pleasure focussed on noradrenaline as the probable reward transmitter. At least twelve positive reward locations are traversed by noradrenergic fibers of the dorsal tegmental bundle, which arises from the noradrenergic locus coeruleus in the midbrain. In animals good self stimulation is not obtained from this nucleus but rather from a region anterolateral to the locus coeruleus. On the other hand, mapping of regions of dopamine innervation revealed a very good correlation between dopamine anatomy and self stimulation. Good self stimulation has been found from the regions of dopamine cells in the central tegmentum, including both the substantia nigra and ventral tegmental dopamine cell regions.

REFERENCES

- Jeri, F.R.; Sánchez, C.C.; Del Pozo, T. & Fernández, M. The Syndrome of Coca Paste. J Psychelic Drugs 10: 361-370, 1978.
- Jerí, F.R.; Carbajal, C.; Sánchez, C.; Del Pozo, T. & Fernández, M. Further Experience with the Syndrome produced by Coca Paste. Bull. Narcotics 30: 1-11, 1978.
- Almeida, M. Contribución al estudio de la historia natural de la dependencia a la pasta básica de la cocaína. Rev. Neuropsiquiat. 41: 44-55, 1978.
- Sánchez, E. Algunos aspectos epidemiológicos de la dependencia a la pasta básica de la cocaína. Rev. Neuropsiquiat. 41: 77-82, 1978.
- Navarro, R. Modificación de la conducta adictiva. Tratamiento y seguimiento de dos casos de adicción a la PBC. Rev. Neuropsiquiat. 41: 83-91, 1978.
- Paly, D.; Van Dyke, C.; Jatlow, P.; Jerí, F.R. & Byck, R. Cocaine: Plasma levels after coca paste smoking. In Cocaine 1980, pp. 106-110, Pacific Press Lima, 1980.
- Paly, D.; Jatlow, P.; Van Dyke, C.; Jerí, F.R. & Byck, R. Plasma Cocaine Concentrations during Cocaine Paste Smoking. Life Sciences 30: 731-738, 1982.
- Siegel, R. Cocaine Smoking, presented at "Cocaine Today" Symposium held at Santa Monica, May 1982.
- Fishman, M.W. & Schuster, C.R. Cocaine Effects in Sleep Deprived Humans. Psychopharmacology 72: 1-8, 1980.

- Barnett, G.; Hawks, R. & Resnick, R. Cocaine Pharmacokinetics in Humans. J. Ethnopharmacol. 3: 353-366, 1981.
- Noya, N.D. Coca and Cocaine. A Perspective from Bolivia. In R.C. Petersen (Ed.) The International Challenge of Drug Abuse. NIDA Research Monograph 19, Washington D.C., U.S. Government Printing Office, pp. 82-90, 1978.
- Noya, N.D. Pure Cocaine "proves devastating" The Journal (Addiction Research Foundation, Toronto, Canada), Jan. 1, 1978.
- Aramayo, G. & Sánchez, M. Clinical Manifestations using Cocaine Paste. In F.R. Jerí (Ed) Cocaine 1980. Lima, Pacific Press, pp. 120-126, 1980.
- Fishman, M.W.; Schuster, C.R.: Resnekov, L.; Schick, J.F.F.; Krasnegor, N.A.; Fennel, W. & Freedman, D.X. Cardiovascular and subjective Effects of Intravenous Cocaine Administration in Humans. Arch. Gen. Psychiat. 33: 983-989, 1976.
- Resnick, R.B.; Kestembaum, R.S. & Schwartz, L.K. Acute Systemic Effects of Cocaine in Man: A controlled Study by Intranasal and Intravenous Routes. Science 195: 696-698, 1977.
- Wise, R. Direct Action of Cocaine on the Brain Mechanisms of complex Behavior, in F.R. Jerí (Ed.) Cocaine 1980, Lima, Pacific Press, pp. 21-28, 1980.

The Syndrome of Coca Paste^{*}

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In the last few years Peruvian psychiatrists have observed the appearance of a new modality of cocaine use through smoking coca paste in cigarettes prepared with tobacco or marijuana. These two latter substances also have pharmacological effects and therefore can not be considered simply as filling material.

Coca paste is a mixture containing cocaine sulfate, ecgonine, other coca alkaloids, benzoic acid, methanol and impurities (e.g., kerosene, alkali, sulfuric acid). Therefore it is not correct to call it basic cocaine paste or cocaine paste.

The pharmacological effects of this preparation are subject to many variables, such as type of paste (brute or purified), dose, frequency of use, aggregate substances (impurities, contaminants, other psychoactive products), environment (social, recreative, individual), motivation (stimulant, antidepressive, situational) and other factors. In consequence, the effects can be diverse according to the prevailing conditions of observation or experimentation.

In 1976 Jeri, Sanchez and delPozo (1976) described coca use in a group of 79 youngsters who had drug problems. Among them seven smoked coca paste. More recently Siegel (1977) mentioned four individuals who had smoked base-free cocaine and described how they used this substance, in very small amounts, in a recreational group where one cigarette was shared by several persons.

In this paper we shall refer to the symptoms and signs presented by 158 heavy coca-paste smokers examined personally by the authors in several psychiatric services in Lima (Peru). Later we shall refer to the epidemiology, differential diagnosis and treatment of this new modality of drug dependence.

MATERIAL AND METHOD

The clinical material of this report is based on the examination and follow-up of 158 persons who were admitted, as in-patients, to four psychiatric services in Lima for serious problems related to heavy coca-paste smoking. The four psychiatric services were: the Alcohol and Drug Dependence service of the 2000-bed Larco Herrera Psychiatric Hospital (ward VIII); the San Antonio Hospital, a private 150-bed psychiatric institution; the San Isidro Hospital, a 125-bed private psychiatric facility; and the psychiatric department, a 30-bed sector, of the Police Hospital (Sanidad del Ministerio del Interior). Some patients were initially seen in private consultations. The observations were compiled over a four-year period (1974-1977).

All patients were initially examined by one of the authors by means of clinical history, physical evaluation, mental status, laboratory studies and, in some, psychological tests. During hospitalization and outpatient visits the patients were interviewed frequently by the authors, describing the symptoms and response to treatment methods. The patients were treated by

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individual or group psychotherapy, neuroleptics (when necessary), family therapy, environmental manipulation and play therapy.

RESULTS

General Traits

From a group of 800 drug-problem patients we selected 158 whose main trouble was excessive coca-paste smoking. They used dried paste, one gram or less, which was fragmented into several pieces and introduced at the lower end of a tobacco or marijuana cigarette. Then this end was closed by twisting the paper, lighted and smoked. Most users began smoking coca paste in bisexual-recreational groups. If they progressed to heavy smoking usually they would turn to unisexual groups. When smoking became very frequent and intensive they tended to smoke alone. Of course we only obtained data from patients and relatives. We were informed that some other individuals, who smoked for curiosity, pleasure or for social reasons found the experience unsatisfactory and did not repeat it.

Among the patients we saw, 97.4 percent were males and 2.6 percent females. As to marital status, 74.8 percent were single and 20.2 percent married. About 80 percent of these users began to use drugs before they were 20 years old. Usually they started with tobacco cigarettes, then alcohol and/or marijuana and lastly coca paste. Most of the patients came from Lima or its suburbs (86 percent) and the rest from other towns in Peru. In relation to occupation, 36 percent were unemployed or had unspecified occasional jobs, 15.8 percent were laborers, 26.5 percent were office clerks, 20.2 percent students and 1.2 percent professional people.

We have divided social class in Peru according to the monthly family income. Most of our patients came from middle (52.2 percent) or low (42.4 percent) income groups, whereas only a very small proportion came from wealthy homes (5.0 percent). A considerable number of our patients (77.8 percent) began secondary school but only 39.2 percent finished their studies satisfactorily. Also, 12 percent of these began university studies but only two of them were graduated at the end of writing this report.

Form of Use

Most of our patients began the use of drugs by smoking marijuana, some after experience with tobacco cigarettes and/or alcohol (75.3 percent); others started only with cannabis (10.8 percent). Only 13.9 percent smoked coca paste as their first drug.

This study found that coca-paste smoking is a recent

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trend in Peru. About 64.1 percent of these patients started experimenting with coca paste two years before, 5.6 percent had a history of three years use and only 2.5 percent had been smoking coca paste for more than four years.

The drug was used alone in 15.8 percent of our patients. In a great majority of cases (84.2 percent) it was preceded, combined or continued by other drugs (usually alcohol or marijuana). In the wealthy, cocaine snorting could be combined with coca-paste smoking.

Some of our patients were polydrug users, mixing or employing successively four, five, six or even twelve drugs. Most of the patients in this series became dependent on coca paste after using it several times.

At the time of their referral the majority of subjects said they had been smoking coca paste for less than two years (65.3 percent). They preferred to smoke it every day if possible. In fact, 46.8 percent of this group smoked daily until the paste was no longer available, they felt very sick or were caught by the police or relatives. Therefore, we may conclude that coca paste tends to be smoked in long sessions, which may last several days. When the addict has no more drug s/he has to stop, though s/he might become desperate to obtain more paste. That is why some of our patients were forced to smoke only three times a week (10.1 percent), twice a week (6.3 percent), once a week (11.3 percent) or occasionally (6.9 percent).

Clinical Manifestations

These patients were seen under several circumstances. A few were examined in the emergency rooms of different hospitals, during states of acute intoxication, suffering from crises resulting from excessive or prolonged use of the drug. Most of them however were interviewed after the acute intoxication or the situational crisis was over.

During the initial phases of intoxication with coca paste most of the subjects experienced considerable euphoria, which was verbalized as an experience of intense pleasure, happiness or the satisfaction of doing something yearned for very much. They smoked deeply and repeatedly – sometimes slowly, other times rapidly – experiencing feelings of depersonalization, indifference or accomplishment. After a few minutes of intense enjoyment they developed anxiety and vehement wishes to continue smoking, leading to repeated, or chain, smoking. When they run out of paste they try to obtain or buy more in a state of compulsive anxiety. The user does not sleep, has no appetite and his/her only wish is to continue smoking.

Most users began smoking, as said before, for

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socialization, recreation, sexual facilitation or situational relief; others to diminish the sedative effects of alcohol. Gradually all these needs are no longer important and the individual is only interested in smoking paste until it is finished, s/he is caught or s/he is so intoxicated that the session has to be interrupted.

At the beginning of use, most youngsters started smoking in the evenings, in small groups, sharing the paste they could buy among all of them. Later, they tended to isolate themselves and smoke alone or in pairs. When the session has lasted for about half-an-hour the user begins to experience unpleasant effects: numbness in lips, tongue, cheeks and nose; dryness of mouth; itching eyes; palpitation; shakiness; headache; dizziness; generalized warmth; profuse perspiration; colicky pain; and a need to empty the bowel (see Table I).

At almost the same time the majority of subjects (83.5 percent) experienced marked anxiety, which was only partially relieved by smoking more paste, and visual illusions and hallucinations, which began as elementary photopsiae and later took more complex forms, such as white dots, white clouds, brilliant lights, shadows (sometimes dark, other times whitish or colored) which seemed momentarily to be human beings and later were clearly identified as persons (police officers, parents, relatives, enemies). When the user reached this point s/he would look apprehensively from one side to another and could pass from doubt to conviction that s/he was being followed. Users have many slang words for this unpleasant period of the intoxication; some can not be translated to English, others would mean "pale trip," "paranoid trip," "the anxious one" and so on, but all could be likened to the English "bad trip."

Once the users became assured that there was no outside danger, they continued smoking. Most of them said that at the start they wanted to enjoy the paste, but later in the session they thought that they had to continue smoking to diminish the overwhelming anxiety.

Tactile hallucinations were also very frequent but had to be asked about because the subjects did not give them so much importance as the visual illusions and hallucinations. Experienced by most subjects during acute intoxication, these unpleasant skin sensations came from immediately under the skin, giving the impression of numbness, itching, worms or insects crawling on the surface. Many times the patients were seen scratching, touching or picking at different areas of their bodies.

Sometimes the subject experienced auditory hallucinations, as elementary sounds, noises or voices which called, threatened or insulted them. Rarely they would hear the voices ordering aggression or death to them or

TABLE 1

MAIN SYMPTOMS REPORTED BY 158 COCA PASTE DEPENDENT PERSONS DURING THE INTOXICATION STATE

Signs & Symptoms	Number	Percent
Euphoria	141	89.2
Anxiety	132	83.5
Anorexia	115	72.7
Insomnia	110	69.6
Talkativeness	68	43.0
Hallucinations	59	37.3
Sweating	56	35.4
No thirst	53	33.5
Paranoia	51	32.2
Irritability	43	27.2
Sexual indifference	41	25.9
Uneasiness	38	24.0
Instability	36	22.7
Aggressiveness	31	19.6
Dry mouth	30	18.9
Sexual stimulation	17	10.7
Headache	14	8.8
Incoherence	12	7.5
Dizziness	10	6.3
Jealousy	8	5.0
Self aggressions	6	3.7
Suicide attempt	3	1.8

others. Generally the auditory hallucinations were observed in the patients who remained in a psychotic state after the acute intoxication was over.

During the advanced phases of a smoking session many other disturbances could be observed such as sleeplessness, anorexia, talkativeness, irritability, aggressiveness, sexual indifference and sexual impotence. The session ended when there was no more paste or when the intoxication was so severe that the subjects went home or others took them home or left them in a hospital. However, usually the subjects tried to diminish the unpleasant effects by drinking alcohol (pisco, vodka, rum, anisette), alone or mixed with soft drinks. When they wanted to sleep they drank more alcohol or used a sedative (diazepam [Valium®] was very popular with some). A session generally lasted many hours, from early evening until the next day. Occasionally some subjects could smoke for two or three days without stopping. Many others would smoke daily, several hours each day, if they had the paste.

When an individual smoked frequently s/he would become pale, thin, malnourished, shaky, unkempt, introverted, irritable, indifferent, unreliable and antisocial. S/he would lie frequently, neglect his/her family, leave his/her job or drop out of school. To obtain more drug s/he stole, got in debt, swindled or became a paste peddler.

Hallucinations and paranoid interpretations are frequent during acute intoxication and are clearly related to the amount of drug consumed. However, they had the tendency to disappear some hours after smoking was stopped. Nevertheless 30 of our patients were admitted because they presented a state of acute hallucinosis, which had not cleared up after stopping drug consumption. Six others showed signs of a paranoid psychosis, also developed by coca-paste smoking, which did not disappear after drug withdrawal (see Table II).

The clinical contact with these patients showed that many of them could pass, in a matter of hours, from a

TABLE 2

MAIN SIGNS OBSERVED ON ADMITTANCE OF 158 COCA PASTE DEPENDENT PATIENTS

Signs and Symptoms	Number	Percent
Paleness	123	77.8
Low weight	118	74.6
Personal neglect	110	69.6
Frequent lateral glances	75	47.4
Depression	74	46.8
Tachycardia	72	45.5
My driasis	64	40.5
Hallucinosis	59	37.3
Hyperhydrosis	56	35.4
Psychomotor excitement	48	30.3
Scratch marks	44	27.8
Hypervigilance	35	22.1
Indifference	32	20.2
Inactivity	30	18.9
Nausea and vomiting	25	15.8
Tremor	24	15.1
Psychomotor agitation	21	13.2
High blood pressure	20	12.6
Incoordination	9	5.6
Myoclonus	8	5.0
Paranoid psychosis	6	3.7
Ventricular arrythmias	5	3.1
Asthma	5	3.1
Muscular rigidity	3	1.8
Convulsions	2	1.2

euphoric to a dysphoric state. Many also could transfer from euphoria to hallucinosis or from dysphoria to hallucinosis. The latter could persist for several days or could progress to a paranoid psychosis. At the beginning of these abnormal mental states the subjects had insight as to the unreal nature of their experiences; later they became involved in the delusional interpretation and would develop paranoid actions.

Dysphoric Reactions

In the Spanish version of this paper we have presented 27 representative case histories. Because of the space limitations here we will refer only to a few of them. The first illustrates the development of marked dysphoria with coca paste.

Case 6: A 22-year-old patient, who was married and employed as an engine operator, began to smoke marijuana three years ago because he felt depressed and had problems. One year later he began smoking coca paste. At the beginning of each smoking session he felt good. Later he felt unsteady; he thought that the police followed him and that people knew that he was smoking coca paste. He sold household items to buy coca paste, causing arguments with his wife. He became fed up with his difficulties and planned to resign his job. He thought that he then would take the indemnification money half for his wife, half for him to buy paste. When the paste was finished, he would kill himself. His expenses in paste had become very considerable because he would smoke up to 50 g in one session. Finally he made a suicide attempt with a large quantity of phenothiazine.

This patient had had psychological problems since childhood. At seven he began stealing from school. He soon became aggressive and rebellious. When he was 14 his parents forced him to leave home. At 18, he joined a gang of robbers and was jailed seven times. He was released on parole.

On examination he was a thin, lucid, well oriented man, markedly depressed, though at other moments he was observed to be very restless. He had marked insomnia. This patient developed paranoid ideation during intoxication and a severe depressive reaction related to coca-paste smoking, which ended in a serious suicide attempt.

Case 7: Another patient who was 45-years-old, began drinking alcohol heavily at 22. One-and-a-half years before admission, he started smoking paste (10-12 cigarettes in each session). During this stage he felt unstable and excited; he could not sleep. If he continued smoking he would feel better for a while. But if the experience continued, again he would feel "very bad." On one occasion he could not sleep for "twenty days"

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after a coca-paste binge and felt anxious, fearful, restless and finally panicky. This was the reason for hospital admission. He had had two previous admissions with the same dysphoric reaction to coca-paste smoking.

Case 11: The different dysphoric reactions produced by coca paste, as contrasted to alcohol effects, were seen in a 25-year-old, single, male patient. This man began drinking heavily when he was 19. He could not abstain nor could he stop drinking when he started a spree. Five months before admission he started to smoke coca paste. During the smoking session, and many hours afterward, he became impulsive and aggressive. His behavior became completely disorganized. After each coca-paste binge, he felt extenuated, low, anxious, depressed, asthenic and anorexic.

Case 12: Also contrasting effects were seen between marijuana and coca paste. A 23-year-old, asthmatic, male patient began to smoke marijuana when he was 14. This drug produced very pleasant effects but eventually precipitated asthmatic attacks so he had to stop smoking it for a year-and-a-half. A year before admission, he began to smoke paste while drinking beer. During these binges, he became very restless, anxious, paranoid and agitated. He had to be taken to emergency room services several times and was treated with parenteral neuroleptics for several days. In the last crisis he felt anxious, had a severe headache and began to shout and cry. He was taken to his room, where he got hold of a knife and stabbed himself repeatedly in the chest. This was another serious suicide attempt due to the acute effects of coca-paste smoking.

Hallucinosis

The considerable tendency for coca-paste smoking to produce illusions and hallucinations in many subjects can be illustrated by very brief summaries:

A 25-year-old, male, married accountant began to smoke marijuana when he was 16. In his college years he was a polydrug user, employing alcohol, amphetamines, methaqualone, LSD and cocaine hydrochloride. These drugs were snorted, drunk, swallowed or mainlined. Lately he was introduced to coca-paste smoking. He liked it so much that he said he would use it every day if he could and in fact he smoked paste for fifteen consecutive days before being admitted to a hospital. He said that he had discovered that coca paste was the only drug for him. This caused an urge to use it more and more. While he smoked, he experienced auditory hallucinations: he heard his brother coughing, who was not in the room and he also heard many other noises. When he stopped smoking paste the hallucinations disappeared in about two weeks.

Case 14: Some patients developed auditory hallucinations, anxiety and depression as observed in a 31-year-old worker who began to consume paste seven months before admission. Gradually he smoked more and more. Before admission, he had used paste every day and was eager for the weekend because then he could smoke paste without interruption for two days. One week before admission he began to hear threatening voices and thought that he was being followed; also he experienced sleeplessness and when he did sleep had frequent nightmares. On examination he was a thin, lucid, alert, well oriented man who talked in a low voice, was depressed and anxious. He had definite paranoid thoughts, slept poorly and woke up frequently due to terrifying dreams. He was treated with trifluoperazine and the hallucinations and paranoid ideas cleared up in ten davs.

Case 15: Delusional thought disturbances and olfactory hallucinations were seen in a 33-year-old office clerk. He began to use marijuana when he was 14 years old. Two years before admission he began to smoke coca paste, about 10 cigarettes daily. Occasionally he would snort cocaine hydrochloride when drinking alcohol. Gradually he increased paste consumption until he used 40 g daily, several times a week. In the two months prior to admission, he lost weight (19 pounds) and noticed that his work performance diminished considerably due to memory loss. He also noticed bad odors and, as he smelled them everywhere, became convinced that the odors came from his body, though he bathed daily and used deodorants frequently. He also thought that people did not like him and were saying nasty things about him. This patient received parenteral and oral neuroleptics (chlorpromazine) and the hallucinations and pathological ideas cleared up in two weeks.

Psychoses

As has been documented in previous descriptions, the tendency to relate pseudoperceptions with paranoid thinking is very marked with coca-paste intoxication. It is therefore not easy to trace the border between hallucinosis and psychosis. In a strict sense, most of our patients hallucinated during a heavy coca-paste smoking session: they presented an acute toxic psychotic reaction. Therefore, we consider psychotic reactions to have severe and prolonged hallucinations and paranoid delusions. The paranoid pattern is so common with our paste consumers that acute intoxication with persecutory ideation is called by them "*la paranoica*" that is to say the paranoid reaction. When there is a predominance of dysphoric symptoms, the users are called "*angustiados*," the anxious ones.

A few psychotic reactions lasted more than two weeks and sometimes with auditory hallucinations disturbed the patients considerably, as happens with many acute primary psychoses. This could be seen for example in a 24-year-old worker who began to smoke marijuana when he was 17. Two years later he smoked mixed coca-paste marijuana and later coca paste-tobacco cigarettes. He was treated in the hospital and remained drug free for three months. Then he relapsed and consumed seven grams of coca paste three times a week. After a month he became very anxious, felt persecuted and heard insulting voices. Later the voices ordered him to kill. This alarmed him so much that he asked to be admitted to the hospital once more. When seen, he was lucid, excited, disoriented in time, had insight about the origin of his symptoms but continued to perceive auditory hallucinations and his thought processes were accelerated and incoherent. He therefore had typical signs of an acute exogenous psychosis. He recovered in a few days after administration of neuroleptics. After the psychotic signs disappeared, his behavior was determined to be definitely psychopathic.

In some patients, jealous delusions become a serious problem, inducing the patients to verbal aggression, physical attacks and even firearm assaults. We can refer to Case 18 who was overly jealous of his lover and thought that he saw her with other men in many places, until finally he discharged four pistol shots against the door of a friend because he was convinced that the man was having an affair with his woman. Another 31-year-old man (Case 19), who had been smoking coca paste frequently for several weeks began to notice that people in groups talked about him, others were following him and his wife was making advances to other men. Then he would accuse his wife and ill treat her even if she protested innocence. On questioning, he said he had noticed a change in himself, he was not like this, he was convinced that he was followed and that there was someone making signs to his wife. He became furious and began to beat her. He saw persons that were after him, he heard steps, he saw the shadow of someone observing him; other times he visualized strange forms and when he came near there was nothing there. At other times he heard people talking loudly about him or his wife, he hurriedly went out and there was no one. He then came in and immediately heard the same voices again. He was admitted to the hospital and treated with phenothiazine, resulting in calming. The hallucinations were not noticed any more, but he was still pathologically jealous one month after being hospitalized.

Some patients become so aggressive and agitated

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that they have to be admitted by force to the hospital. This happened for example to a 25-year-old man, a university student who smoked coca paste for two days without interruption, consuming 40 cigarettes. He became violently excited and had to be hospitalized with the help of the police. Another patient (Case 23) became so excited after coca-paste smoking that he had to walk continuously from one sector of the city to another, talking, drinking and smoking in the street. He also felt persecuted and thought that he would be detained at any moment.

A 19-year-old boy (Case 24) became so dependent on paste that he had to begin smoking at 10 in the morning, every day of the week. After two months, he felt that he was being followed all the time, heard voices that called him by his name and ordered him to come to a halt. All vehicles seemed to him police patrol cars. Eventually he became so affected by these experiences that he thought the only way out was to commit suicide. He could not sleep at night unless he drank a considerable quantity of alcohol. He was admitted to the hospital and treated with phenothiazine. After 33 days, the psychotic symptoms had vanished, but he remembered what he felt and became anxious when thinking about his past mental disorder.

When coca paste is used frequently in heavy quantities, the psychotic reactions may be severe, as with a 25-year-old press writer (Case 25) who had been smoking paste for four months, several times a week. He became violently excited and aggressive and was admitted to the hospital against his will. He was extremely angry and attacked the hospital personnel on many occasions. During the first week he was confused. disoriented, incoherent and his behavior was aberrant. He improved rapidly and was discharged after a month. Two months later he was readmitted, after a resumption of coca-paste use and development of a new psychotic-paranoid reaction. As he felt desperate because he thought he was being followed everywhere by many people, he stabbed himself through the abdomen with a kitchen knife and an operation was performed in a general hospital. He was very ill for several weeks after the suicide attempt. During those days the psychotic symptoms persisted. He thought that he was a prisoner in the hospital; he believed he had supernatural powers; he said that he could talk to a Peruvian poet, who was in Paris (this poet had died many years ago); and he saw extraterrestrial beings in his room who made him do things against his will. The psychotic symptoms cleared up after a month with the aid of phenothiazine compounds.

In conclusion, we can say that psychotic reactions

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and hallucinosis were observed frequently in our group of heavy coca-paste smokers. These reactions are dose related and may clear up with drug withdrawal. If the individual has been abusing coca paste for many weeks, s/he may present a more prolonged and dangerous paranoid psychosis. However, these reactions also remit after a few weeks and the recovery is definitely accelerated by neuroleptics of the phenothiazine or butyrophenone groups.

COMMENT

This study, done during the last four years, confirms the dissemination of the use of coca paste among the young people of Lima. It occurred as an epidemic whose cases were easily identified, spreading from one person to another, among peers, relatives and even spouses. Many of these individuals have used other drugs, but once they start smoking coca paste, they abandon the others (either partially or totally) because in Peru, they find the latter not very expensive, easy to get and easy to carry, with a potent and fast action and, according to what they believe, lacking in dangerous side effects.

No real epidemiological studies on drug abuse have been done in this country. A survey conducted nine years ago among university students revealed that 18.8 percent had used drugs and one percent were suspect of dependency (deLeon 1969). Clinical investigations (Jeri, Carbajal & Sanchez 1971; Jeri, Sanchez & delPozo 1976) show progressive increase of the use of drugs among youngsters seen in general and psychiatric hospitals. Coca-paste dependency is now the main cause of admission to the sections of addiction of the psychiatric hospitals in Lima. We are undoubtedly experiencing a new epidemic of drug dependence which was originated by the market fluctuations between the produce, its access, use and the repressive measures used recently. The increase of coca paste or cocaine exports to the U.S. and Europe, due to its great demand (Connell 1969; Eiswirth, Smith & Wesson 1972; Crowley 1973; Gay et al. 1973; Woods & Downs 1973; Ashley 1975), produces an illicit increase of production in Peru and Bolivia. When control measures intensify, locally and internationally, exportation becomes difficult, causing the product to remain in the country. Traffickers then try to sell locally and young peddlers are the ones in charge of introducing new trends - such as making cigarettes and mixing the coca paste with marijuana, tobacco and other herbs. Thus a new fashion of usage has been developed. The person inhales a number of toxic substances (cocaine, ecgonine, methanol, benzoic acid, nicotine, etc.), all of which have systemic and neurological effects, by means of rapid absorption from the pulmonary

alveoli. In relation to the main characteristics presented by this group of coca-paste consumers we can only add that they are mostly male youngsters belonging to lower and middle classes, mainly unemployed, office clerks or students. Eighty-six percent were born in Lima and Callao. They began the use of drugs between the ages of 11 and 20 years, but the use of coca paste only started four years ago (1974), generally associated with other drugs, especially alcohol. Once they begin coca-paste smoking, they usually stop consuming other drugs, with the exception of alcohol. This preference for paste is due to the intense effects obtained. In spite of the impurities it has, white or purified paste may contain up to 85 percent cocaine sulfate and rough paste up to 60 percent. These mixtures produce strong effects and create a quick psychic dependence, much stronger than the one observed in coca-leaf chewers (Gutierrez-Noriega 1947) or in cocaine inhalation (Wilson 1968; Byck 1977). Most patients in the group were introduced to coca-paste smoking by friends or relatives for socialrecreation purposes and a few for situational-resolution purposes.

The effects produced by paste are characterized by a rapid development of euphoria accompanied almost simultaneously by anxiety and the compulsive need to go on smoking. These effects are intense and, as with intranasal and intravenous cocaine administration, they pass rapidly (Chopra & Chopra 1958; Eddy et al. 1965; Bejerot 1969; Byck 1977). Therefore the user needs to repeat the dose in order to continue feeling pleasure, excitation, euphoria and other sensations. Paste reaction is so intense that most users, after a few minutes, experience disagreeable sensations (anxiety, compulsions, insomnia, sexual impotency, disquiet, instability, aggressiveness, headaches and dizziness). Some patients, from the very first puffs, experience perceptual disturbances (visual hallucinations). Many require continuous use for several hours to develop a picture of paranoid hallucinosis, which they term "palteados" and comprises visual, tactile and auditory hallucinations with delusive ideas of persecution, aggression or jealousy.

Few of these patients were seen during acute intoxication as the majority came for consultation after the serious effects had disappeared, even though 30 had, on admission, hallucinatory disturbances and psychomotor excitement or agitation. However, some symptomatic manifestations such as facetiousness, hallucinosis, paranoia, irritability, depression, aggressiveness and insomnia persisted in many of them.

The physical appearance of these patients was characteristic. These youngsters were pale, slim and umkempt with a tendency to glance from side-to-side.

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They had shiny and mydriatic eyes or red conjunctivae, hallucinosis, shakiness, alertness, rapid pulse, restlessness, confusion and suspiciousness. We were impressed with the fast transition from euphoric to dysphoric or psychotic patterns, a phenomenon which is frequently observed during a session of paste smoking that lasts for many hours or days.

It is evident that coca paste contains a considerable quantity of cocaine which produces rapid toxic effects. Therefore the Post hypothesis (Post 1975) is confirmed in the sense that there are three clinical syndromes caused by cocaine: euphoria, dysphoria and psychosis. Many authors (Freud 1884; Chopra & Chopra 1958; Bejerot 1969; Ashley 1975; Byck 1977) have noticed the rapid progression from one syndrome to the other, especially when cocaine is used intravenously. Coca chewing always produces a euphoric picture and, in chronic users, a dysphoric state (Gutierrez-Noriega 1947; Blejer-Prieto 1965; Negrete & Murphy 1967; Buck et al. 1968; Hanna 1974). Coca-paste smoking produces a quick transition from a normal state to a psychotic reaction, which, of course, is subject to the variety of types of coca paste, doses employed, frequency of use, environment and so on. The individual's genetic and constitutional factors are also important, as is his/her previous psychic state and the combination of drugs s/he may prepare.

Some authors (Gordon 1908; Owers 1912; Chopra & Chopra 1947; Siegel 1977) differentiate cocaine hallucinosis and cocaine psychosis, relying on the brevity of the hallucinations and the rare occurrence of delusions in the former, and in the persistence and systematization of pseudoperceptive experiences and thought disturbances in the latter. Most of the cases seen by us correspond to hallucinosis because they remit in a few hours or days after stopping excessive use of the drug.

Acute intoxication, like chronic intoxication, may cause death in humans or animals, according to the doses employed (Scheppegrell 1898; Ludwing & Pyle 1969; Byck 1977; Finkle & McCloskey 1977). We have also observed acute reactions in many patients which include rapid pulse, mydriasis, high blood pressure, myoclonus, trembling, generalized convulsions and loss of consciousness. In Peru, we know of two traffickers (not included in this group) who, in order to smuggle the drug, ate a great number of small plastic bags containing cocaine hydrochloride. Some of these small bags burst and produced intoxication, dyspnea, rapid pulse, high blood pressure, ventricular arrythmia, generalized convulsions, coma and finally death due to heart arrest. One of these dealers died in a detention center, and the other showed signs of intoxication aboard an airplane and was quickly taken to the nearest hospital. The autopsy of both showed a great quantity of small plastic bags containing cocaine in the digestive system. Some were broken and the contents had been absorbed into the bloodstream.

The use of coca paste may have grave consequences to its consumers. Most of them were detected as coca-paste smokers by parents, wives or employers, because they dedicated themselves to robbery, swindling and became indebted in order to buy the drug. They became unreliable at their jobs, were frequently absent or neglected their duties and some even smoked paste during work hours. School and university students often abandoned their studies or failed in their courses. Many users stayed away from home until dawn or did not return for days, staying away until they ran out of money or paste. Others returned in a state of acute intoxication or depression, begging their relatives for medical help. Unfortunately, many relapse and have to be hospitalized several times. When the individual has a family, in almost 90 percent of the cases, serious problems arise due to the antisocial, aggressive, delinquent or psychotic behavior of the user. Therefore it can be said that this form of cocaine addiction produces harmful effects, individually and socially, equal to those caused by intravenous cocaine hydrochloride (Chopra & Chopra 1958; Bejerot 1969; Crowley 1973; Finkle & McCloskey 1977). Consequently we are facing a new epidemic which should be thoroughly controlled and investigated by all available resources in the country.

As to differential diagnosis, coca-paste users often employ other drugs, sometimes to diminish the toxic effects and at other times to be able to sleep after an intense session. These combinations of drugs make it difficult to establish a typical clinical picture. However, coca-paste intoxication has similar characteristics to sympatheticomimetic drugs, and is notably different from the clinical syndromes produced by alcohol (Gutierrez-Noriega 1947; Chopra & Chopra 1958; Connell 1969) or by narcotics (Bowley 1965; Connell 1969; Chapel 1973). The frequent evolution seen with coca-paste intoxication is a quick progress from euphoria to dysphoria and then to psychosis or hallucinosis. This rapid change is seldom observed with alcohol, except in pathological intoxication, and is not seen with narcotics.

Treatment has consisted, as mentioned before, in hospitalization of the patient. Isolation and interruption of coca-paste use has not produced intense or prolonged withdrawal symptoms. It is possible that the marked anxiety observed in many coca-paste smokers corresponds to the almost immediate development of a dependence pattern which is only relieved with the

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smoking of more coca-paste cigarettes – similar to cocaine addiction (Kolb 1925; Chopra & Chopra 1958; Bowley 1965; Ashley 1975). Sleepless, anxious or excited patients were given minor sedatives such as benzodiazepine, orally or parenterally. In cases of intense excitation or psychomotor agitation it has been necessary to use injectable neuroleptics (chlorpromazine, trifluoperazine). Electric shock therapy was not used. The psychotherapeutic treatment consisted of analytic, group and family psychotherapy. We can add that these patients show a consistent tendency to relapse, usually with the same drug-use patterns. It is undeniable that a deep psychic dependence is established to the coca paste in these patients.

NOTE

In the original Spanish version of this paper the clinical material was presented in 17 tables and the main data of 27 patients was summarized in clinical vignettes. In this version, we have presented the main clinical aspects in two tables and introduced some information on individual patients in the general discussion of the results.

REFERENCES

- Ashley, R. 1975. Cocaine: Its History, Uses and Effects. New York: St. Martin's Press.
- Bejerot, N. 1969. A comparison of the effects of cocaine and synthetic central stimulants. British Journal of Addiction Vol. 65: 35-37.
- Blejer-Prieto, H. 1965. Coca leaf and cocaine addictions. Some historical notes. Canadian Medical Association Journal Vol. 93: 700-704.
- Bowley, T. 1965. Heroin and cocaine addictions. Lancet Vol. 738(1): 808-810.
- Buck, A.A.; Sasaki, T.T.; Hewitt, J.J. & Macrae, A.A. 1968. Coca chewing and health: An epidemiologic study among residents of a Peruvian village. *American Journal of Epidemiology* Vol. 88: 159-177.
- Byck, R. 1977. Cocaine: What are the Effects of Cocaine in Man? NIDA Research Monograph, No. 13.
- Chambers, C.D.; Taylor, W.; Russell, J. & Moffet, A.D. 1972. The incidence of cocaine abuse among methadone maintenance patients. *The International Journal of the Addictions* Vol. 7(3): 427.
- Chapel, J.L. 1973. Emergency room treatment of the drug abusing patient. American Journal of Psychiatry Vol. 130: 257-259.
- Chopra, I.C. & Chopra, R.N. 1958. The cocaine problem in India. *Bulletin on Narcotics* Vol. 10: 12-24.
- Connell, P.H. 1969. Drug taking in Great Britain: A growing problem. Royal Society for the Promotion of Health Vol. 89: 92-96.
- Crowley, A. 1973. Cocaine. San Francisco: Level Press.
- DeLeon, O. 1969. Epidemiologia del consumo de psicoestimulantes entre Universitarios peruanos. Revista de Neuro-Psiquiatria Vol. 32: 17-32.
- Eddy, N.B.; Halbach, H.; Isbell, H. & Seevers, M. 1965. Drug dependence: Its significance and characteristics. *Bulletin of the World Health Organization* Vol. 32: 721-733.

- Edmundson, W.F.: Davies, J.E.; Acker, J.D. & Myer, B. 1972. Patterns of drug abuse epidemiology in prisoners. *Industrial Medicine and Surgery* Vol. 41(1): 15-19.
- Eiswirth, N.A.: Smith, D.E. & Wesson, D.R. 1972. Current perspectives on cocaine use in America. Journal of Psychedelic Drugs Vol. 5: 153-157.
- Finkle, B.S. & McCloskey, K. 1977. Cocaine: The Forensic Toxicology of Cocaine. NIDA Research Monograph, No. 13.
- Freud, S. 1884. On coca. Centralblatt fur die gesammte Therapie (Wien). Vol. 2: 289-314.
- Gay, G.; Sheppard, C.; Inaba, D. & Newmeyer, J. 1973. Cocaine in perspective: "Gift from the Sun God" to "the rich man's drug." Drug Forum Vol. 2: 409-430.
- Gordon, A. 1908. Insanities caused by acute and chronic intoxication with opium and cocaine. A study of 171 cases. Suggestions, legislations and other measures. The questions of responsibility. *Journal of the American Medical Association* Vol. 51(2): 97-101.
- Gutierrez-Noriega, C. 1947. Alteraciones mentales producidas por la coca. Revista de Neuro-Psiquiatria Vol. 10: 145-176.
- Gutierrez-Noriega, C. & Von Hagen, V.W. 1950. The strange case of the coca leaf. *The Scientific Monthly* Vol. 70(2): 81-89.
- Gutierrez-Noriega, C. & Zapata-Ortiz, V. La inteligencia y la personalidad en los habituados a la coca. *Revista de Neuro-Psiquitria* Vol. 13: 22-60.
- Hanna, J.M. 1974. Coca leaf use in southern Peru: Some biological aspects. American Anthropologist Vol. 76: 281-296.
- Hawks, R. 1977. Cocaine: The Material in Cocaine: 1977. NIDA Research Monograph, No. 13.
- Hindmarch, I. 1973. The patterns of drug abuse in school children. Bulletin on Narcotics Vol. 24(3): 23-24.
- Horowitz, J.L. & Sediacek, W.E. 1973. University student attitudes and behavior toward drugs. *Journal of College Student Personnel* Vol. 14(3): 236-237.
- Isbell, H. & White, W.M. 1953. Clinical characteristics of addictions. American Journal of Medicine Vol. 14(5): 558-565.
- Jeri, F.R. 1972. Drogas peligrosas y adolescencia. Programa para investigacion medica, prevencion, asistencia y rehabilitacion de la farmaco dependencia en el Peru. Revista Sanidad del Ministerio del Interior Vol. 33: 309-320.
- Jeri, F.R.: Carabajal, C. & Sanchez, C.C. 1971. Efectos nocivos de farmacos simpatico-mimetocos en un grupo de adolescentes. Anales del Programa Academico de Medicina. Universadad Nacional Mayor de San Marcos de Lima Vol. 54: 75-103.
- Jeri, F.R.; Sanchez, C.C. & delPozo, T. 1976. Consumo de drogas peligrosas por miembros y familiares de la fuerza armada y fuerza policial peruana. *Revista Sanidad del Ministerio del Interior* Vol 37: 104-112.
- Kolb, L. 1925. Pleasure and deterioration from narcotic addiction. Mental Hygiene Vol. 9(4): 699-724.
- Kolb, L. 1925. Drug addiction in its relation to crime. Mental Hygiene Vol. 9(1): 74-89.
- Ludwing, A.M. & Pyle, R.I. 1969. Danger potential of commonly abused drugs. Wisconsin Medical Journal Vol. 68: 216-218.
- Mariani, A. 1890. Coca and Its Therapeutic Application. New York: J.N. Jaros.
- Martin, R.T. 1970. The role of coca in the history, religion and medicine of South American Indians. *Economic Botany* Vol. 24: 422-438.

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- McLaughlin, G.T. 1973. Cocaine: The history and regulation of a dangerous drug. Cornell Law Review Vol. 58: 537-572.
- Mills, C.K. 1905. Morphinomania, cocomania and general narcomania and some of their legal consequences. International Clinics Vol. 1(Ser. 15-11): 159-176.
- Mortimer, W.G. 1901. Peru. History of Coca, the Divine Plant of the Incas. New York: J.H. Vail and Company.
- Negrete, J.C. & Murphy, H.B.M. 1967. Psychological deficit in chewers of coca leaf. Bulletin on Narcotics Vol. 19(4): 11-17.
- Noble, P.J. 1970. Drug taking in delinquent boys. British Medical Journal Vol. 1: 102-106.
- Noble, P.J. & Barnes, G.G. 1971. Drug taking in adolescent girls: Factors associated with the progression to narcotics. *British Medical Journal* Vol. 2: 620-623.
- Noble, P.J.; Hart, T. & Nation, R. 1972. Correlates and outcome of illicit drug use by adolescent girls. *British Journal of Psychiatry* Vol. 120: 497-504.
- Owers, W.D. 1912. Signs and symptoms presented by those addicted to cocaine. Journal of the American Medical Association Vol. 58: 329-330.
- Post, R.M. 1975. Cocaine psychoses: A continuum model. American Journal of Psychiatry Vol. 132: 225-231.

- Scheppegrell, W. 1898. The abuse and dangers of cocaine. Medical News Vol. 73(14): 417-422.
- Seevers, M.H. 1939. Drug addiction problems. American Scientist Vol. 27: 91-102.
- Siegel, R.K. 1977. Cocaine: Recreational Use and Intoxication. NIDA Research Monograph, No. 13.
- Stephens, R.C. & Weppner, R.S. 1973. Patterns of "cheating" among methadone maintenance patients. Drug Forum Vol. 2(4): 357-366.
- Tatum, A.L. & Seevers, M.H. 1931. Theories of drug addiction. Physiological Review Vol. 11(2): 107-120.
- Wesson, D.R. & Smith, D.E. 1977. Cocaine: Its Use for Central Nervous System Stimulation Including Recreational and Medical Uses. NIDA Research Monograph, No. 13.
- Wilson, C.W.M. 1968. Drugs of dependence. The Practitioner Vol. 200: 102-112.
- Woods, J.H. 1977. Cocaine: Bebavioral Effects of Cocaine in Animals. NIDA Research Monograph, No. 13.
- Woods, J.H. & Downs, D.A. 1973. The psychopharmacology of cocaine. In: National Commission on Marihuana and Drug Abuse. Drug Use in America: Problem in Perspective. Appendix: Vol. 1: Patterns and Consequences of Drug Use. Washington, D.C.: Government Printing Office.

Journal of Psychedelic Drugs

1ST STORY of Level 1 printed in FULL format.

The Associated Press

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March 23, 1982, Tuesday, AM cycle

SECTION: International News

LENGTH: 100 words

HEADLINE: Pontiff Orders Drug Study

DATELINE: VATICAN CITY

KEYWORD: Pope-Drugs

BODY:

Pope John Paul II has ordered the creation of a special Vatican department to study drug problems afflicting young people, Vatican sources said Tuesday.

One official said the pontiff has told his subordinates that he is "increasingly concerned over the dimensions that the drug problem has assumed in the past few years."

The new panel, composed of educators, priests and drug experts, will undertake research on the reasons young people find themselves increasingly susceptible to drugs and will make recommendations on ways the church can help the young, the sources said.



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The Associated Press

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August 9, 1980, Saturday, AM cycle

SECTION: International News

LENGTH: 120 words

HEADLINE: John Paul opposes liberalizing drug laws

DATELINE: CASTEL GANDOLFO, Italy

KEYWORD: Pope

BODY:

Pope John Paul II told a group of former drug addicts Saturday that he opposed the liberalization of anti-drug laws as proposed by Italy's health minister.

The use of drugs reflects "the loneliness and lack of communications in modern society," the pontiff said in a Mass in the garden of his summer palace 25 miles south of Rome.

"As the sad experience of several nations show, permissive laws ... serve neither to prevent nor solve" the problem, he added.

Health Minister Aldo Aniasi said last month he would introduce measures to liberalize laws dealing with soft drugs such as marijuana so that police could concentrate their fight against the smugglers and pushers of hard drugs.

LEVEL 1 - 1 OF 1 STORY

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August 9, 1980, Saturday, BC cycle

SECTION: International News

LENGTH: 140 words

DATELINE: CASTEL GANDOLFO, Italy

KEYWORD: Pope

BODY:

Pope John Paul today condemned liberalization of anti- drug laws and blamed society for pressuring young people into seeking "an artificial paradise."

Speaking during a mass for 100 rehabilitated drug addicts the Pope expressed concern over proposals to liberalize what he said were wrongly called soft drugs and to legalize the use of heroin in hospitals.

"As the painful experience of many nations shows, more permissive legislation in this field serves neither for prevention nor cure," the Pope said at his summer palace here.

Pope John Paul said remedies were needed for social ills to prevent young people turning to drugs.

Those ills, he said, included unemployment, lack of housing, social injustice, political power-seeking international instability, marriage without preparation and legalization of abortion and divorce.

1ST STORY of Level 1 printed in FULL format.

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August 10, 1980, Sunday, Late City Final Edition

SECTION: Section 1; Part 1; Page 13, Column 1; Foreign Desk

LENGTH: 468 words

BODY

AROUND THE WORLD; Three People Are Killed; In Northern Ireland Unrest

BELFAST, Northern Ireland, Aug. 9 (AP) - Disturbances rocked Northern Ireland's major cities today as Roman Catholic militants marked the ninth anniversary of internment without trial. Three people were killed, 14 were injured and 38 were arrested, the authorities said.

Protesters hijacked bovernment vehicles and set buildings ablaze during the shootings and other violence, according to the police. Catholics went ahead with their annual protest even though Britain abandoned internment without trial in Northern Treland earlier this year.

The dead in the latest violence included a British soldier and two youths, all slain in Belfast.

Legalization of Marijuana Is Opposed by the Pope

CASTEL GANDOLFO, Italy, Aug. 9 (UPI) - Pope John Paul II spoke out strongly today against legalizing marijuana. The 60-year-old Pope said other faults of modern society were the legalization of abortion and divorce. He made his remarks at the papal summer residence during a special audience for drug rehabilitation experts from the United States and Western Europe.

The Pope said he was opposed with all his soul to the liberalization of drug laws, especially in regard to what he said were ''erroneously defined as light drugs. ''

Talks Resume in Nicosia On the Future of Cyprus

NICOSIA, Cyprus, Aug. 9 (UPI) -Greek Cypriot and Turkish Cypriot negotiators met for the first time in 14 months today, resuming United Nations-supervised talks aimed at restoring peace on the divided island.

The two sides set Sept. 16 as the start of substantive talks toward an overall settlement of their rivalries, heightened since Turkey occupied the northern part of the island in 1974.

Soldiers of the United Nations peacekeeping contingent escorted the negotiators to the meeting at the Ledra Palace Hotel in Nicosia.

Ethiopia Reports Killing 1,300 Somalis in Ogaden



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(c) 1980 The New York Times, August 10, 1980

NAIROBI, Kenya, Aug. 9 (AP) - The official Ethiopian radio said today that Ethiopian troops ambushed a Somali military convoy in the disputed Ogaden region, killing more than 1,300 Somali soldiers and wounding 2,000 others.

The report, in a broadcast monitored in Nairobi, could not be confirmed by independent sources. Ethiopian casualties in the reported battle were not mentioned.

Ethiopia and Somalia fought a war over the Ogaden region of southeastern Ethiopia in 1977 and 1978. Somalia lost the conflict to Ethiopian forces helped by Soviet advisers and Cuban troops, but ethnic Somali tribesmen have continued a guerrilla struggle to free the territory from Ethiopian rule.

The Ethiopian broadcast today, quoting the Defense Ministry, said the battle occurred two weeks ago in an area about 380 miles southeast of Addis Ababa, the Ethiopian capital.

LEVEL 1 - 1 OF 1 STORY

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September 30, 1980, Tuesday, Late City Final Edition

SECTION: Section A; Page 1, Column 4; Foreign Desk

LENGTH: 596 words

HEADLINE: U.S.BISHOPS URGING ROME TO RE-EXAMINE BIRTH CONTROL ISSUE

BYLINE: By The Associated Press

DATELINE: ROME, Sept. 29

BODY:

American Roman Catholic bishops called on the Vatican today for ''a completely honest examination'' of the birth control issue, saying that Catholics who use contraceptives cannot be dismissed as ''obdurate, ignorant'' people of bad will.

Archbishop John R. Quinn of San Francisco issued the call in a speech delivered

Excerpts from speech, page A5. today to the Synod of Bishops here on behalf of his National Conference of Catholic Bishops.

''A very large number of men and women of good will do not accept the teaching on the intrinsic evil of each and every use of contraceptives,'' the Archbishop said, adding that there should be a new church doctrine of ''responsible parenthood.''

Synod is on Family Issues

Daye

Archbishop Quinn, who is president of the United States bishops' conference, spoke to the more than 200 bishops from around the world gathered here for the monthlong synod on the role of the Christian family in the modern world.

The Archbishop said he accepted the ''Humanae Vitae'' encyclical issued by Pope Paul VI in 1968, which prohibited contraception. But he said it is possible that there are ''nuances and clarifications'' and ''greater pastoral insights'' on the matter that can remove the ''impasse which is so harmful to the church.''

Archbishop Quinn cited published studies showing that 76.5 percent of Roman Catholic women in the United States are using artificial birth control methods and that only 29 percent of Catholic priests there believe contraception is immoral.

The Archbishop said dissent by well-known theologians over the church stand on contraception casts doubts on other church teachings as well.

''This problem is not going to be solved or reduced merely by a simple reiteration of past formulations or by ignoring the face of dissent,'' he said. ''The fact that a significant number of theologians do not accept the teaching

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§ 1980 The New York Times, September 30, 1980

on contraception constitutes a grave problem for the church.''

Russell Shaw, a spokesman for the United States delegation to the synod, said Bishop Quinn was not pressing for a specific change in the church's stand on birth control. He said the bishops were not calling for a reversal of the Vatican's opposition to artificial birth control and did not expect any major change in church doctrine.

Hope for Sympathetic Approach

He said what might be possible would be a more sympathetic approach by the church to couples who feel they must use artificial birth control.

''Pope Paul VI took a very compassionate view toward people who, for one reason or another, couldn't live up to the teachings of the church,'' said Mr. Shaw, who is from Washington D.C.

The church may also look into new forms of ''natural'' family planning that use the principle of the rhythm method but which are increasingly effective, he said. The rhythm method involves sexual abstinence during days when a woman is likely to be fertile.

Mr. Shaw said responsible parenthood means ''trying to do the best you can as a Christian to decide how many children you can have and raise in a responsibile way.''

The Roman Catholic Church rejects all birth control devices and chemical contraceptives, such as the pill. The only method of birth control accepted by the church is the rhythm method.

In addition to birth control, the topics being considered by the bishops' synod include family and social issues such as the changing role of women, sex education, consumerism and <u>drug addiction</u>. They will present a report to Pope John Paul II at the end of the synod. The report is not binding on the Pope.

GRAPHIC: Illustrations: Photo of Archbishop John R.Quinn page A6

LEVEL 1 - 1 OF 3 STORIES

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November 19, 1980, Wednesday, AM cycle

SECTION: International News

LENGTH: 1060 words

BYLINE: By Annette Von Broecker

DATELINE: MUNICH, West Germany

KEYWORD: Pope

BODY:

Pope John Paul II ended a five-day visit to West Germany today, the first by a Roman Catholic Pontiff in 198 years to the land where Martin Luther launched the Protestant Reformation, by calling for new efforts at reconciliation in Europe in the aftermath of World War II.

In a farewell speech, the Polish-born Pontiff recalled his previous visit to this country as Cardinal Karol Wojtyla of Cracow two months before his elevation to Pope in 1978.

"This visit was evidence of a very important development which was going on between your and my country and which is going on still -- I mean the process whose goal it is to overcome the tragic result of World War II ...

"I know them from my own experience because I have lived with my own nation through the cruel reality of World War II.

"We must do everything possible in order to give a new foundation and new form to the life and union of the people and the nations of this continent and thereby overcome the result of that terrible experience of our century," he said as he bade farewell to President Karl Carstens and Roman Catholic bishops at Munich airport before leaving for Rome.

President Carstens, referring to a remark the Pope made on the day of his arrival, said that it would never be forgotten that the Pontiff expressed hope for a solution to what he had called the painful post-war division of Germany into two states.

Turning from memories of the war, Pope John Paul said one of the main challenges of the future was to unite Christians after the split between Roman Catholics and Protestants more than 450 years ago with Martin Luther's Protestant reforms.

"I want to serve unity," he said. "I hold the firm hope that the unity of Christians is already on its way and the power of the spirit of truth and love."

The only public hint of Christian disunity during the Pope's stay came today when a young woman speaking on behalf of Roman Catholic youth departed from her text at an open-air mass to criticize the church's conservative attitude to such problems as sex and marriage.

"We want our wishes, hopes and fears to be taken seriously," she said. Pope John Paul, sitting behind her on the podium, was visibly taken aback, but did not reply.

The young woman said that many young people felt isolated when the church responded to problems of sex, friendship and partnership with prohibitions. She criticized the teaching of celibacy and ban on ordination of women despite a shortage of priests.

In his sermon, the Pope had said: "We know how long the times of separation and division have been, but we do not know how long the way to unity will be. But one thing we know with great certainty: We have to keep on walking this way with perseverance. Keep on going on, do not stand still," he said.

In the last of seven open-air masses of his tour, the Pope told the crowd of half a million that young people should beware of the dangers of terrorism, sectarianism and the misuse of drugs and alcohol.

The Pontiff spoke during an open-air mass which he celebrated in a square in Munich where 13 people died at the "Oktoberfest" beer festival seven weeks ago in the worst post-war bomb attack in West Germany.

"In many parts of the world, near and far, there are acts of the rawest kind of violence and sanguinary terror. Even here, where we are celebrating the Eucharist, we must commemorate ... The victims who were suddenly killed on the edge of this large square by an explosive charge," he said.

"It is hard to understand what man is capable of doing in the confusion of his mind and heart," he added.

Pope John Paul, paying the first visit for 198 years by a Roman Catholic Pontiff to the land where Martin Luther launched the Protestant Reformation in the 16th Century, has issued a strong call for Christian unity during his stay.

The Pope, who spoke from a makeshift altar swept by cold northern winds, arrived here today from Altoetting. Munich, in the heart of the Roman Catholic south of West Germany, was the last of seven towns on his route.

The Polish-born Pontiff's visit has produced significant moves to bridge differences between Roman Catholics and the Evangelical (Lutheran) Church.

An agreement was reached in Mainz on Sunday in the first meeting between a Pope and Protestant leaders on German soil to form a joint ecumenical commission made up of members of the two churches.

Pope John Paul, 60, has drawn huge crowds during his tour, which has taken him from the staunchly Protestant north to the southernmost Germany. His central message underlined the need to adhere to human and Christian values in a world plagued by violence and materialism.

Although lacking the spontaneous enthusiasm of the Pope's previous seven foreign tours, which have included trips to Brazil, Africa, France, and the United States, his visit was considered by both West German and Vatican churchmen as a success.

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The Frankfurter Allgemeine newspaper said the Pope's visit was a special symbol for West Germans, going beyond confessional barriers.

"The great sign for everyone is that now also the Pope, a Pole, has helped to give Germans back their value, as others have done since the hour of the division of Germany," it said.

Pope John Paul, speaking German with only a slight accent, urged young people in his speech in Munich not to try to escape from life by seeking salvation in the world of drugs, pseudo-religious sects or political and social utopias.

"Not a few people here in your country are in the process of destroying their inner being by withdrawing into themselves with the aid of <u>alcohol and</u> <u>drugs</u>, " he said. About 600 people are known to have died through <u>drug</u> <u>abuse</u> in West Germany last year.

Pope John Paul, who has shown seemingly boundless energy and stamina during an arduous schedule, called on Monday in his most outspoken political comment for mankind to be freed from all forms of imperialism and for the 1975 Helsinki human rights accords to be respected.

The only occasion the Pope appeared to flag was in Mainz on Sunday, when he suffered from a nosebleed while addressing Polish compatriots. The Pope, who has had five strenuous days of up to 18 hours of celebrating mass and giving speeches, looked weary, but a Vatican spokesman said there was no cause for alarm over his health.

LEVEL 1 - 2 OF 3 STORIES

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November 19, 1980, Wednesday, PM cycle

SECTION: International News

LENGTH: 580 words

BYLINE: By Annette Von Broecker

DATELINE: MUNICH, West Germany

KEYWORD: Pope

BODY:

Pope John Paul, on the last day of his pilgrimage to West Germany, warned young people against the dangers of terrorism, sectarianism and the misuse of drugs and alcohol.

The Pope was speaking in Munich at his last open-air mass to half a million people packed onto the square where seven weeks ago 13 people died in a bomb blast at the "Oktoberfest" beer festival.

"In many parts of the world, near and far, there are acts of the rawest kind of violence and sanguinary terror," he said.

"Even here, where we are celebrating the Eucharist, we must commemorate...the victims who were suddenly killed on the edge of this large square by an explosive charge.

"It is hard to understand what man is capable of doing in the confusion of his mind and his heart," the Pope said in his homily -- devoted to the problems of youth.

The 60-year-old Pontiff urged young people not to escape from life by seeking salvation in the world of drugs, pseudo-religious sects or political and social utopias.

"Not a few people here in your country are in the process of destroying their inner being by withdrawing into themselves with the aid of alcohol and drugs," the Pope said.

West Germany, with some 600 people who died because of drug abuse last year, has launched a major campaign to reverse the trend.

"Withdrawing into themselves can also lead to pseudo-religious sects, which abuse your idealism and your enthusiasm and deprive you of freedom of thought and conscience," he continued.

In a clear reference to Communist ideology, the Pope said people also attempted to flee into political and social utopias, which he called idealised dreams of society.

"As necessary as ideals and aims are, utopian magic formulas will not get us anywhere, since they are usually accompanied by totalitarian power or the



destructive use of violence," he said.

The Pope appears to have deflected much of the controversy which preceded his arrival in the land where Martin Luther launched the reformation which caused the schism between Roman Catholics and Protestants in the 16th century.

He has shown seemingly boundless energy and stamina during a gruelling program which took him from the mainly Protestant north to the Catholic south. His Mass today is dedicated to young people and he is due to address youth groups before meeting artists, publishers and the elderly.

Only once did the 60-year-old pontiff seem to flag. He leaned on his crozier and bent his head wearily while speaking to a group of his Polish countrymen in Mainz Cathedral Square.

Speaking in German with only a slight accent, Pope John Paul has pronounced on religion and politics but has also joked with the crowd in his sermons.

In his most outspoken political comment, he called on Monday for mankind to be freed from all forms of imperialism and for the 1975 Helsinki human rights accord to be respected.

On religious matters, the agreement on the ecumenical comission was the most important step. The commission is to be made up of members of the West German Bishops' Conference, the Evangelical (Lutheran) Church and the Vatican Secretariat for Christian Unity.

But both Protestants and Catholics have cautioned against undue optimism.

Although the Pope admitted that his church was not blameless for the 450-year-old rift between the churches, he has tempered his calls for Christian unity with repeated assertions that fundamental Roman Catholic dogma should not be compromised.

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LEVEL 1 - 3 OF 3 STORIES

Proprietary to the United Press International 1980

November 19, 1980, Wednesday, PM cycle

SECTION: International

LENGTH: 830 words

BYLINE: By JACK R. PAYTON

DATELINE: MUNICH, West Germany

KEYWORD: Pope

BODY:

Pope John Paul II, recovered from a nosebleed, finished his tour of West Germany today by celebrating mass near the site of a terrorist bombing and condemning drugs, atheism and ''pseudo-religious'' cults.

More than half a million people attended the outdoor mass in the Oktoberfest beer festival park, site of a neo-Nazi bombing that killed 13 and injured 204 people last September.

During the service, John Paul also condemnded the corrosive aspects of modern society that lead to terrorism and what he called the utopian illusions of Communist ideology.

Although the pope, 60, suffered from a slight nosebleed Sunday, the second day of his visit, Vatican officials said he wound up the trip in fine health.

''He is a bit tired by now, but that's only natural on a trip like this,'' an official said.

He said the Pope's nosebleed was ''not serious, only some drops of blood. His doctor didn't even have to do anything about it, the bleeding stopped by itself.''

Before leaving for Rome, the pope met briefly with West German artists and publishers, then separately with representatives of Munich's elderly population.

He told the elderly that their experience and accrued wisdom was proof ''that the meaning of life cannot consist in earning and spending money, that in all our external activities there has to mature something internal and something eternal in all the temporal.''

During the mass, Barbara Engl, head of the Munich branch of West Germany's Catholic Youth Association, attacked the church for not understanding young people's views on sex outside marriage.

''The church talks more in terms of banning things than in showing readiness to discuss them,'' she said in a departure from her speech text. ''Holy father,'' she said, ''we cannot understand why the church adheres to celibacy in the face of the shortage of priests.''

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Proprietary to the United Press International , November 19, 1980 She also demanded more participation in church affairs for women.

The pope arrived by train from the medieval town of Altoetting, where he had called on monks and nuns in Europe's most prosperous nation, to preserve their virginity and resist the temptations of modern-day life.

Tens of thousands of enthusiastic Bavarians, many dressed in traditional costume, lined his route today from the train station to the Theresienwiese, and cheered the pontiff as he rode his plexiglass-covered special car through the throngs to the special altar, adorned in red and gold.

''Not a few young people here in your country are in the process of destroying their inner beings by withdrawing into themselves with the aid of alcohol and drugs,'' the pope said.

'Very often anxiety and despair are the reasons behind this, but often, too, it is based on a thirst for pleasure a lack of asceticism or the irresponsible curiosity of wanting to 'try out' everything at once.

''Withdrawing into oneself can also lead to pseudo-religious sects, which abuse your idealism and your enthusiasm and deprive you of the freedom of thought and conscience,'' John Paul said.

The Polish-born pontiff also told young people to avoid what he called an ''escape from reality ''by embracing communism.

''As necessary as ideals and aims are, utopian 'magic formulae' will not get us anywhere since they are usually accompanied by totalitarian power or the destructive use of violence,'' the pope said.

The pontiff also condemned terrorism and commemorated the victims of the Oktoberfest blast.

''Even here, where we are celebrating the eucharist (communion) we must commemorate before God the victims who were recently injured or suddenly torn into death on the edge of this park by an explosive charge.

''It is hard to understand what man is capable of doing in the confusion of his mind and his heart,'' the pope said.

In a meeting with theologians in the Medieval Bavarian village of Altoetting, Tuesday, the pope also reiterated his strict interpretation of the doctrine of papal infallibility, which has been under attack from Swiss maverick theologian Hans Kueng.

At an open-air mass for 50,000 people thronging the narrow cobbled streets and square, the pope said nuns and monks should maintain their ''consecrated virginity,'' and called them to arms in a ''spiritual battle'' against the evils of modern society.

''Today perhaps more than ever before the kingdom of God suffers from violence and needs new warriors in response to the temptations and demands of our time,'' John Paul said.



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Proprietary to the United Press International, November 19, 1980

''(That) is the allurement of today; get drunk from the horn of plenty of life, in the drunkenness of speed, the drunkenness of sensuality, the drunkenness of delusion, and the drunkenness of violence,'' the pope said.

The pope also defended his stand on papal infallibility against public criticism from Kueng, who teaches at the revered West German university of Tuebingen, but was barred by the pope last December from teaching seminarians or speaking on behalf of the Roman Catholic church.

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2ND STORY of Level 1 printed in FULL format.

Proprietary to the United Press International 1982

November 4, 1982, Thursday, PM cycle

SECTION: International

LENGTH: 700 words

BYLINE: By PHILIP PULLELLA

DATELINE: SEGOVIA, Spain

KEYWORD: Pope

RODY:

Pope John Paul II toured three medieval cities in the Spanish countryside today and branded as ''un-Christian'' terrorists who killed one of the nation's top army generals earlier in the day.

After traveling from Guadalupe and Toledo, the pope was greeted in Segovia by a group of elderly invalids waiting to see him in the main square of town.

The killing of Gen. Victor Lago Roman, one of the nation's top officers, took place in Madrid less than an hour after the pope left the capital by helicopter.

Police blamed the attack on the Basque separatist group ETA waging a terror campaion for an independent Marxist state in the northern Basque region of Spain.

John Paul, on the fifth day of his 10-day, 17-city visit to Spain, was told of the submachine gun attack by aides shortly after arriving in Guadalupe and wasted no time in condemning it.

''I want to pray for the latest victim of terrorism in Spain,'' he told a crowd of 200,000 people gathered outside Toledo for an outdoor mass.

''Let us ask God to free this nation, this nation whose deep longing for peace and co-existence has been wounded, that it be freed of this painful plaque of terrorism, '' John Paul said, his voice rising with emotion.

''Let us pray that everyone understands that violence is no solution, that it is un-Christian.''

The pope's reference to the morning terrorist attack in Madrid came after he urged Toledo's Catholic community to take an active part in the nation's social and political life to foster human rights and dignity.

He also met with representatives of the city's unique 3,300-strong ''Mozarab'' community -- Arabs who came to Spain during the Moslem conquests and converted to Christianity.

The Mozarabs, the only community of its kind in Spain, presented the pope with a prayer book in Arabic script.

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Proprietary to the United Press International, November 4, 1982

Earlier, the pope visited the shrine in Guadelupe of the Black Madonna -- patron saint of Spain's Latin American conquest.

In a brief address following prayers at the shrine of Our Lady of Guadalupe, the pope spoke out against the poverty in the surrounding region that has forced many of its residents to move elsewhere in search of work.

''Capital should be at the service of the worker, not vice versa,'' John Paul said, lamenting that people's lives are often subject to ''the uncontrolled movements of the law of supply and demand.''

The white-washed houses of Guadalupe, hung with bunting and pictures of the pope, glimmered in the morning sun. People filled the streets and sat on the brown clay roofs of the low houses.

The town's monastery is the home of the Black Virgin of Guadalupe, the image carried by Spanish soldiers whose guns secured the country's colonization of Latin America. More than 100 towns in South America and the Philippines are called Guadalupe after this sleepy mountain town.

Guadalupe is also one of the centers of Catholicism's devotion of the Virgin Mary. Our Lady of Guadalupe is a sister to the Black Madonna of Czestochowa -the holiest shrine of the pope's native Poland.

Rising on the day of St. Charles -- the namesday of the former Karol Woytyla, as the pope was once called -- John Paul was greeted early today by hundreds of people singing outside the nunciature in Madrid where he spent the night.

John Paul spent the last two days in Madrid where he spelled out stern moral views, leaving little doubt that his personal warmth and obvious crowd appeal do not mean the church will compromise on issues it considers vital.

The mixture of personal magnetism and uncompromising morality was most evident Wednesday when John Paul addressed more than 160,000 Spanish youths jammed into Madrid's main soccer stadium and another 200,000 outside.

Obviously enchanted by the pope's presence, the young people screamed, chanted, sang and jumped up and down when he appeared.

When the noise died down following requests by John Paul for a chance to speak, he told the young people they would have to work to overcome evil influences around them.

''Neither drugs, alcohol nor sex, nor a resigned and uncritical passivism are an answer to evil,'' he said, adding that pre-marital sex was empty and unfulfilling as well as immoral.

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LEVEL 1 - 1 OF 1 STORY

Copyright @ 1982 U.S.News & World Report

December 6, 1982

SECTION: Pq. 57

LENGTH: 1020 words

HEADLINE: Italy's War on Mafia: Is It Real This Time?

BYLINE: BY ROBIN KNIGHT

DATELINE: ROME

HIGHLIGHT:

A determined drive is under way against the murderous brotherhood that for decades has defied efforts to end its reign of crime and terror.

BODY:

After years of hesitation, Italy and the Roman Catholic Church finally are facing up to a problem long concealed behind a barrier of silence, lies and corruption -- the Mafia.

Once little more than a local protection racket centered on the island of Sicily, the Mafia has become one of the world's leading drug entrepreneurs.

Today, its activities are generating profits in the hundreds of millions of dollars annually. Its tentacles reach into virtually every corner of Italian life, and it has become one of the major sources of heroin entering the U.S.

In the U.S., the 25 active families of the Mafia, or La Cosa Nostra, are estimated to gross up to 200 billion dollars a year from the kinds of crime with which it usually is associated: Gambling, arson and loan sharking. Drug trafficking adds tens of millions more.

Not only is the government cracking down in Italy, but the church in this <u>Catholic country is on the attack</u>. During a two-day trip to Sicily in late November, Pope John Paul II criticized the ''barbaric violence'' of organized crime and called upon the people to reject drugs, corruption and killings.

As profits have soared, so has Mafia terrorism. This year alone, the police attribute to the Mafia more than 230 murders and disappearances in and around Palermo, the Sicilian capital. Gang warfare in Naples involving factions of the Camorra -- a related, Mafia-style organization -- has claimed 630 victims in the last three years.

Among the dead have been many persons linked with anti-Mafia investigations -- judges, local politicians, policemen and journalists -- as well as hundreds of mafiosi, members of the Mafia.

One murder stands out from all others and is largely responsible for Rome's get-tough approach -- the killing in Palermo in early September of Gen. Carlo Alberto Dalla Chiesa, the man chosen by the Italian government four months earlier to spearhead its anti-Mafia drive. ''The Mafia has challenged the state, and the sovereignty of the republic is at stake,'' said Giovanni Spadolini,

1982 U.S.News & World Report, December 6, 1982

Italy's Premier at the time.

Encouraged by rare public outrage, Italy's normally dilatory parliament rushed through legislation. For the first time, Mafia membership is a crime. Dalla Chiesa's successor in Palermo has been given wide powers.

It is too early to assess results of the counteroffensive. In recent times, only the harsh policies of the Mussolini dictatorship in the 1930s have made much of a dent in the Mafia's hold on Sicily. But with church leaders on the island joined with labor bosses and the powerful Communist Party in an unusual alliance behind the government, the basis for success is said to exist.

From United States and Italian experts comes this estimate of the scale of the challenge:

* Up to 60 percent of heroin reaching the U.S. is thought to be processed in Mafia-run laboratories on Sicily.

* The value of this trade runs to about 6 billion dollars annually. For the Mafia, that means yearly profits of between 500 million and 600 million.

* Most of the money from America returns to Italy -- to be ''laundered'' by corrupt bankers and invested by the Mafia in legitimate businesses.

* The construction industry on Sicily is largely Mafia controlled, and U.S. officials are concerned that contracts worth about 1 billion dollars for building of an American missile base at Comiso are falling into Mafia hands.

* So great is the wealth generated by Mafia-Camorra activities that it is said to total 13 billion dollars, 4 percent of Italy's yearly gross national product of about 330 billion. In Sicily, Mafia income is estimated at five times that of the regional government.

Important drug links between Italy and the U.S. date from about 1977 when a Franco-American drive led to the destruction of heroin laboratories in the port city of Marseilles, France. The Mafia moved in and transferred what was left of the Marseilles network to Sicily.

''Godfather'' hop. Today, the morphine base from which heroin is produced enters Italy by sea from Lebanon and Syria. After being refined in Sicily, it is moved by ship to the U.S. from Naples or goes by air. It is no coincidence that the New York-Rome-Palermo flight is known on Sicily as ''the Godfather.''

So far this year, the police on Sicily are said to have discovered four processing laboratories, each capable of producing 110 pounds of high-grade heroin a week -- worth perhaps 12 million dollars on New York streets. At least six additional laboratories, each run by a separate Mafia clan, are thought to be operating in and around Palermo.

For the Mafia, involvement in heroin trafficking is a sharp departure from its traditional activities. These date to the late 18th century when absentee landlords employed gangs of Sicilian thugs to keep local peasants in line. By the late 19th century, the gangs began moving into Palermo. After World War II, the Mafia turned to protection rackets and other forms of extortion.

1982 U.S.News & World Report, December 6, 1982

Relying heavily on terror and omerta -- a bond of silence -- to keep its secrets, high unemployment to provide recruits and corrupt local politicians to give protection, the Mafia for decades defied attempts to curb it.

Drugs and the wealth they generate have, however, altered the Mafia's character. The so-called new Mafia is younger, urban based, more ruthless and sophisticated. It has been known to work with political terrorist groups like the Red Brigades.

Distracted by the struggle against political terrorism, successive Italian administrations largely ignored the developing cancer. But by mid-1982 the Mafia challenge had grown too big to overlook. Now, a new phase in the anti-Mafia fight is under way -- one in which far greater emphasis than before is being given to its financial base.

Moves also are being made to teach school courses on the Mafia evil. The church threatens to excommunicate convicted Mafia criminals. Unions tell workers how to combat crime.

But only time will tell whether events in Italy mark a real watershed in the country's long struggle against the Mafia or simply are another false dawn.

GRAPHIC: Picture, Italian police search crime suspects in Naples, which along with Sicily is a center of Mafia activity. GIANSANTI -- SYGMA

LEVEL 1 - 1 OF 3 STORIES

Proprietary to the United Press International 1982

December 31, 1982, Friday, AM cycle

SECTION: Domestic News

LENGTH: 100 words

HEADLINE: POPE IN ROME

BYLINE: By GLENNE CURRIE, United Press International

KEYWORD: Aboutpeople

BODY:

Pope John Paul II expressed sympathy Friday for the families of young people who have died of drug overdoses, and told them all the world's evils result from not accepting the gospel of Christ. In a homily during a New Year's Eve mass in a Rome church outside the Vatican, he said, ''How many young people have fallen victim to drugs ... We want to pray for all the Roman families who have been inflicted with pain, that the New Year ... brings comfort and more serene horizons ... All the evils in the world, every sin of man, personal or social, is a non-acceptance of Christ.''

GRAPHIC: PICTURE



PAGE 2

LEVEL 1 - 2 OF 3 STORIES

Proprietary to the United Press International 1982

December 31, 1982, Friday, AM cycle

SECTION: International

DISTRIBUTION: Idaho, Utah

LENGTH: 220 words

HEADLINE: Pope warns against drug abuse

DATELINE: ROME

KEYWORD: World-Pope

BODY:

Pope John Paul II celebrated a New Year's Eve mass Friday at which he remembered the young people who have died of drug overdoses in Italy and said all the world's evils result from not accepting the gospel of Christ.

''Episodes of violence and painful accidents at work have occured during these past 12 months in Rome,'' the pope said in a homily at an afternoon mass celebrated in a Rome church.

''How many young people have fallen victim to drugs and false mirages,'' he said. ''We want to pray for all the Roman families who have been inflicted with pain, that the New Year... brings comfort and more serene horizons.''

The number of Italian deaths attributed to drug addiction increased slightly in 1982, to 247 compared with 237 in 1981. More than half of the deaths occured in the Rome and Milan regions.

''All the evils in the world, every sin of man, personal or social, is a non-acceptance of Christ,'' he said.

''Everything that is directed against man, against his dignity, his life, his rights, everything that threatens the family, the environment, the entire society and humanity, is a non-acceptance of Christ,'' John Paul said.

On New Year's Day, John Paul will celebrate a mass in St. Peter's basilica that Vatican sources said he will dedicate to world peace.

LEVEL 1 - 3 OF 3 STORIES

Proprietary to the United Press International 1982

December 31, 1982, Friday, PM cycle

SECTION: International

LENGTH: 260 words

DATELINE: ROME

KEYWORD: Pope

BODY:

Pope John Paul II, celebrating a New Year's Eve mass today with a prayer for the young people who died of drug overdoses, said all the evils of the world result from not accepting the gospel of Christ.

''Episodes of violence and painful accidents at work have occured during these past twelve months in Rome,'' the pope said in a homily at an afternoon mass celebrated in Rome's Church of Jesus.

''How many young people have fallen victim to drugs and false mirages,'' he said. ''We want to pray for all the Roman families who have been inflicted with pain, that the New Year ... brings comfort and more serene horizons.''

The number of deaths in Italy attributed to drug addiction increased slightly in 1982, to 247 against 237 in 1981. More than half of the deaths occured in the Rome and Milan regions.

''All the evils in the world, every sin of man, personal or social, is a non-acceptance of Christ,'' the pope said.

''Everything that is directed against man, against his dignity, his life, his rights, everything that threatens the family, the environment, the entire society and humanity, is a non-acceptance of Christ,'' John Paul said.

After the mass, John Paul stopped at the headquarters of the Pallotine fathers to thank them for lending him the larger-than-life size statues used in the nativity scene erected in St. Peter's square.

On New Year's Day, John Paul will celebrate a morning mass in St. Peter's basilica that Vatican sources said he will dedicate to world peace. At noon, he will deliver his customary Angelus blessing.



1ST STORY of Level 1 printed in FULL format.

The Associated Press

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February 11, 1983, Friday, PM cycle

SECTION: International News

LENGTH: 98 words

DATELINE: VATICAN CITY

KEYWORD: Foreign Briefs

BODY:

Pope John Paul II is urging Rome authorities to battle the "plague" of drug addiction among young Italians.

The pontiff made his appeal in a special Vatican audience Thursday for Giulio Santarelli, president of the regional government of Lazio where Rome is located.

"We must make every effort to weaken this pest that continues to claim lives and spread tragedy," the pope said, who called for a "full education campaign based on the respect for life."

Italian authorities reported last month that 249 people died in 1982 of drug overdoses, up from 237 in 1980 and 135 in 1979.

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The Associated Press

The materials in the AP file were compiled by The Associated Press. These materials may not be republished without the express written consent of The Associated Press.

September 19, 1983, Monday, PM cycle

SECTION: International News

LENGTH: 157 words

DATELINE: CASTEL GANDOLFO, Italy

KEYWORD: Foreign Briefs

BODY:

Pope John Paul II visited about 100 drug abusers at a rehabilitation center near his summer home and also told a crowd that Roman Catholics must pray "so humanity may be spared the disaster of a nuclear catastrophe."

The pontiff commented Sunday in impromptu remarks to about 10,000 pilgrims and tourists packing the main square and side streets in front of his summer home south of Rome.

It was John Paul's last Sunday appearance this year at Castel Gandolfo, where he has been staying for more than two months. He is due to return Wednesday to Vatican City.

The Vatican said Sunday that John Paul felt "deep personal sorrow" over the death of Cardinal Humberto Medeiros, the Roman Catholic archbishop of Boston. The pontiff sent messages of condolence to the archdiocese of Boston and Archbishop John R. Roach, president of the U.S. National Conference of Catholic Bishops.

Medeiros, 67, died Saturday after heart surgery in Boston.

THE WHITE HOUSE

WASHINGTON

November 1, 1983

Dear Ambassador Gomez:

Thank you so much for your kind hospitality during the United States-Colombia Policy Dialogue reception and dinner.

I enjoyed meeting you and felt the discussions were most rewarding. I look forward to working with you again in the future.

Best wishes,

Sincerely,

Carlton E. Turner, Ph.D. Special Assistant to the President for Drug Abuse Policy

The Honorable Alvaro Gomez Hurtado Vice President and Ambassador of Colombia to the United States Embassy of Colombia 1520 20th Street, N.W. Washington, D.C. 20036





EMBASSY OF THE UNITED STATES OF AMERICA

Bogota, Colombia

October 14, 1983

21 OCT 1083

Dr. Carlton E. Turner Senior Policy Advisor Office of Policy Development Old Executive Office Building 17th & Pennsylvania Avenue, N.W. Washington, D.C. 20500

Dear Carlton:

Many thanks for the Gannett VTR "Epidemic: America Fights Back," which is really a marvelous exposé on how ordinary Americans are successfully dealing with the domestic drug problem.

I have asked USIA to check rebroadcast rights and translation possibilities with an eye toward placing the film on Colombian national television, which I think we can probably do. The film would also serve to give Colombians ideas on how to deal with their own internal drug problem.

I will get off to you as quickly as possible a picture of me watching the film for Gannett.

Many thanks, again, for your support.

Sincerely Lewis A. Tambs

Ambassador





EMBASSY OF THE UNITED STATES OF AMERICA

Bogota, Colombia

21 OCT 1983

October 14, 1983

Dr. Carlton E. Turner Senior Policy Advisor Office of Policy Development Old Executive Office Building 17th & Pennsylvania Avenue, N.W. Washington, D.C. 20500

Dear Carlton:

Thank you for your note of October 4.

Since the VTR "The Chemical People" is available in Spanish, I have asked USIA to check the usage rights and send us a copy for review and possible placement on Colombian television. Many thanks, again, for your tips on good media products for use here in Colombia.

Sincerely Lewis A. Tambs Ambassador

THE WHITE HOUSE WASHINGTON

November 17, 1983

Dear Lew:

Attached is a bumper sticker that might be of interest to you!

For your information, also enclosed is a copy of the sixth grade drug abuse awareness comic book and related materials that were released yesterday.

Many thanks for your efforts. Best regards.

Sincerely,

Carlton E. Turner, Ph.D. Special Assistant to the President for Drug Abuse Policy

The Honorable Lewis Tambs Ambassador U.S. Embassy Bogata, Colombia APO Miami 34038





21 DCT 1023

EMBASSY OF THE UNITED STATES OF AMERICA La Paz, Bolivia

October 17, 1983

Carlton E. Turner, Ph.D Special Assistant to the President for Drug Abuse Policy The White House 1600 Pennsylvania Avenue, N.W. Washington, D.C. 20500 Carllon Dear Dr Turner:

Thank you for your thoughtfulness in sending me the beautiful autographed photograph of the President. I have already sent it to be framed and will display it proudly on my office wall.

We are making slow but sure progress on cocaine control. The 150 elite police unit for the Chapare is undergoing training and if all goes well we will begin to establish control there. Our other agreements are moving slowly also. Come back and see us.

Sincerely,

Ed.

Edwin G Corr Ambassador

THE WHITE HOUSE

WASHINGTON

January 13, 1983

Dear Shaun:

Mrs. Reagan has asked me to respond to your letter regarding legalization of marijuana and other psychoactive drugs. I apologize for the delay, and hope that this information will still be useful to you in your studies. I encourage you to learn all that you can and share your knowledge with your friends.

The argument for the legalization of marijuana is quite popular and, on the surface, very persuasive. Only until you examine what it really means does it begin to look unattractive.

- 1) Should the government legalize illicit drugs, there is no reason to assume that illicit drug traffickers would stop their activity. It is unlikely that enough people who consume illicit drugs would present themselves for legal prescriptions. To do so would mean exposure and admission by the user that he or she had a drug problem. Most drug abusers deny that their drug-taking behavior is a problem.
- 2) Many assume that there is some way to exert centralized control over the production and marketing of products that are already produced and marketed in a decentralized way. For example, if marijuana were legalized there is no way to control production and thereby ensure a supply that is uniform and free of contaminants.
- 3) Even though Britain legalized heroin use, the clinics prefer to dispense methadone. The reason for this is that they claim that heroin's availability is so attractive it presents a danger to public safety through the general criminal activity that surrounds heroin addiction. Heroin is still readily available on the black market in Britain.
- 4) Probably the most important reason not to legalize illicit drugs in any manner is that they are harmful to the health and well-being of our citizens. To dispense, by prescription, a drug that has known health hazards, to a person who is not in a life-threatening situation (such as chemotherapy for cancer patients), is contrary to good medicine. As public servants, we have a moral obligation to protect the health and safety of Americans.

Thus, the Administration firmly stands by its position against the legalization of illicit drugs such as marijuana.

In addition for your information, I am enclosing a fact sheet on this issue and copies of testimony I delivered before the Congress describing the Reagan Administration's drug abuse prevention and control policy. I hope you will find them useful.

Thank you for your interest.

Sincerely,

Carlton E. Turner, Ph.D. Special Assistant to the President for Drug Abuse Policy

Shaun Lee 575 Dewey San Francisco, CA 94116 COMPLITER SYSTEMS

Shaun Lee Systems Specialist And Carl ton Jurner

1720 S. Amphlett Blvd. Suite 120 San Mateo, CA 94402 (415) 345-5700

1720 S. Amphlett Blvd. Suite 120 San Mateo, CA 94402 (415) 345-5700

OCTOBER 30,1983

Nancy Reagan White House Washington D.C.

08 NOV 1093

Dear Mrs. Reagan,

My name is Shaun Lee and I live in San Francisco, California. I go to Mc Ateer Highschool, which has a major <u>Drug</u> problem, so bad that according to my survey 85% of the people at my school have at least tried smoking some type of grass and 65% smoke grass at least 2 times a day.

The reason I°m writing you about our school problem is that I°m writing a report on Drugs and the legalization of them and I would like your opinion on this subject. Because you seem to be one important person who does care about young teenagers taking drugs and is willing to do something about it. Nearly the entire staff at our school couldn°t care if the students got "HI" every day just as long as it didn°t effect them in any way.

Your opinion may change the way at least one student feels about drugs and he may stop. Because my report will be read to the student body-but, if you made a personal appearence maybe our school would have less of a drug problem. One major reason is that they would listen to what you had to say and may change their lives for the better because of you.

Thank, You,

SHAUN LEE 575 DEWEY SAN FRANCISCO, CA 94116 (415)-665-5140 HOME (415)-345-5700 WORK

PS. I think Mr. Reagan did the right thing invading Grenada and helping rescue the 850 Americans on the small island.



KUNDMANNGASSE 21 A-1030 VIENNA, AUSTRIA TELEPHONE 31 55 11

December 19, 1984

Dear Carlton:

We have received the monogram produced, outlining the 1984 National Strategy for Prevention of Drug Abuse and Drug Trafficking. With an appropriate cover note it has gone to the senior people in the three drug organizations at the Vienna International Center and to the Ambassadors here in Vienna who are the other major donors to UNFDAC. You are to be applauded for a continuing superb job in this area.

Best wishes for continued success.

Cordial

Richard S. Williamson Ambassador

The Honorable Carlton Turner Special Assistant to the President The White House Washington, D.C. 20500 Utrecht February 3, 1985

1 1 FEB 1985

9400

Dear Dr. Turner:

Just a short note to let you know that I'll visit Washington on Monday February 18, 1985. I'll arrive with flight PA585 at National Airport at 7:00 PM. On Wednesday February 19, I'll travel to our main office in Downers Grove (Illinois).

In Washington I'll be staying at the Best Western (Arlington). Hope you have time to see me.

I'm looking forward to seeing to you.

Best regards,

Edwa

Edward G. Boeren, Ph.D.