CANCER CONTROL IN PERU

Summary.—Since its creation two years ago, the National Institute of Radium-therapy of Peru has given 13,074 consultations, finding 915 cases of cancer; hospitalized 1,265 individuals (of whom 1,059 have been discharged and 139 have died); and administered 19,647 X-ray treatments, 403 applications of radium, and 675 surgical treatments. A record is being kept of cases according to site of the cancer, classification, treatment, and results, and it is hoped to have come interesting data for comparison at the end of the Institute's first five years. It has been found that about 36% of the cases are under 40 years of age. The Institute has 97 beds (70 free), and a technical staff of 42 and administrative staff of 100. Its organization includes a reception service, the specialized clinics such as Gynecology, Surgery, and Internal Medicine, X-Ray, Basal Metabolism, Laboratory, and Histopathology sections, and the Treatment (both hospital and outpatient), Statistical, and Health Education and Prevention sections. The results of educational work are shown by the fact that there is already a waiting list. It is planned to create a biopsy service through which health service physicians may send tissue specimens by air (possibly gratuitously) from all parts of the country, to the Institute for diagnosis.

EPIDEMIC OF PLAGUE IN REGION OF CAJACAY, PERU

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Introduction.—Due to some alarming reports regarding plague in the Cajacay area of the Departamento of Ancash the Director of the National Anti-Plague Service, Dr. Benjamín Mostajo, and the writer visited this area on June 4 and 5. The information that follows was gathered at that time.

Geography.—Cajacay is a small town of about 1,500 inhabitants located in the southern part of the Departamento of Ancash, in the mountains about 75 kilometers northeast of the coastal town of Barranca. It is situated well above the fog belt at an altitude of 2,600 meters above sea level. Twenty kilometers southwest of Cajacay, slightly off the main road to Barranca and at 2,000 meters above sea level is the Indian village of Raquia. It consists of a collection of some forty-odd adobe huts surrounded by fields of corn, potatoes, and tropical vegetation. The valley of Quebrada in which these settlements are located is quite deep and narrow. It averages less than a kilometer in width. Average rainfall and temperature has not been recorded, but the rainy season is from December to May. The temperature during our visit was above 20 degrees centigrade. This area seems to be much more tropical in character than the coastal area of Peru. A tributary of the Fortaleza River furnishes it with water. There are many foot and animal trails connecting the various settlements in this valley, but there is only one trafficable road and this leads from Barranca on the coast to Huaraz in the Sierra.
Prevalent Diseases.—The valley of the Fortaleza River and its tributaries is an area in which verruga, leishmaniasis, and typhoid fever are endemic. Malaria is also present. Up until the present time little plague has been reported from this area and none from Cajacay and Raquia.

History and Epidemiology of Present Outbreak.—In May, 1944, two cases of human plague were reported from the Cajacay area and at that time a chief inspector was sent to investigate and to institute control measures. The inspector reported 10 cases with two deaths. He undertook some rat control measures for about one week, returning with the statement that everything was under control.

Later in May other cases were reported and this time Dr. Mostajo was sent to investigate. He found 20 more cases and reported that the inspector had done little or no work in connection with rodent control. As the local health authorities seemed to have little or no interest in the outbreak, it was decided to investigate personally the matter.

The exact method and route of infection of this area are still problematical and further evidence may be uncovered. However, one possible link brought to our attention by conversations with the governor and other residents of that valley, is as follows: In December, 1943, an Indian woman who lived in Raquia went by burro to the estancia of Mallao near the settlement of Yamor, to buy potatoes and other articles of food. When she arrived there she found four persons ill with fever and gland enlargement, and two others who had recently died. She returned within a few days with her purchases which may have included some guinea pigs. Shortly after her return to Raquia she became ill with fever and enlarged glands. The inspector first sent to this area did a lymph node aspiration which proved to be negative for plague. She recovered completely. Her illness was preceded by an epizootic of her guinea pigs, all of which died, in January, 1944.

There were no other human cases reported from January until April. In this month four deaths were reported in the nearby settlement of Colea, and a total of 25 deaths were reported in that vicinity up until the time of our visit. Two of these occurred in Huaquión five leagues distant from Raquia.

We were informed that the settlement of Yamor, site of the original suspected cases of plague in this area, has considerable traffic down a southern valley with Arguay, an hacienda near the coast which was infected with plague in December 1943.

Extent of the Epidemic.—The exact extent of the plague epidemic in this area is not known, but it has been a sharp outbreak. Undoubtedly most of the 30 odd deaths reported in this area during the past five months have been plague. Twenty-three of these occurred in April and May. Up until the present date there have been 44 known cases of plague in Raquia. There were four deaths confirmed to be plague.

Rodents and Fleas.—Mus rattus, M. norvegicus, and M. alexandrinus have been caught in the vicinity of Raquia. The predominant flea is X. cheopis. The trapping index is between 15 and 20, indicating a relatively dense murine population. The flea index is above five.

Type of Plague.—From the history of the outbreak it would appear that the epidemic started with a virulent strain which gradually became less virulent. All cases were bubonic in type.