

be present must have been so for infection to have occurred. The case thus appears to be on a par with the one reported by Cornwall, and quoted by you, of the British sergeant who was indirectly infected through the leash of a rabid dog. It has the added importance, however, of proving that the saliva of herbivora can convey the infection. It may be objected that definite proof against infection by another rabid animal is not forthcoming. To my mind this is most unlikely to have escaped the attention of the man's friends, had it occurred, and the case appears to me to be as authentic a record as will ever be obtained in cases of this kind. It would appear therefore that medical men must continue to send, and Directors of Pasteur Institutes continue to treat, cases of wounds inflicted by rabid herbivorous animals and licks sustained under conditions which give rise to the possibility of infection.

Under ordinary circumstances this case would have been reported in the annual report of this Institute, but the special attention drawn to this subject by your editorial makes it necessary that the principles underlying this particular case should have at least equal publicity.—Yours, etc.,

J. CUNNINGHAM,  
LIEUT.-COL., I.M.S.,  
Director,  
Pasteur Institute of India.

KASAULI.  
18th July, 1927.

(Note.—We particularly welcome Colonel Cunningham's report, because it appears to establish, once and for all, the fact that the saliva of rabid herbivorous animals may be infective. As such, it is a most important contribution to the literature.—EDITOR, *Indian Medical Gazette.*)

To the Editor, THE INDIAN MEDICAL GAZETTE.

SIR,—After reading the editorial in your issue for last July, dealing with the problems of rabies, I am prompted to forward to you particulars of the following incident.

On the morning of the 18th February, 1927, a rabid jackal appeared in the town of Shahganj and began to attack all and sundry. Its victims were either persons sleeping on the roadside or those going to their work. No less than eight persons (four males and four females) came to this dispensary, having been bitten by this animal, who showed tooth marks or superficial scratches inflicted by it.

One of these patients had ultimately killed the jackal by blows from his *lathi*, but in doing so, had received a deep wound on his left arm.

The wounds of all eight patients were immediately cauterised with pure carbolic acid and dressed, and the patients were advised to go to Kasauli for antirabic treatment. The man who killed the jackal, however, refused to go.

On the 1st June, 1927, I was called to see a patient in the town, and on enquiry learnt that he was one of the eight who had been bitten by the rabid jackal on the 18th February. He had not gone to Kasauli. He had developed hydrophobia, and died within three days of the first onset of symptoms. This man had received only a superficial scratch on the tip of his right index finger.

Up to the date of writing this note, the five other patients who did not go to Kasauli have remained quite well.

Points of interest in the case are:

(1) The patient who developed hydrophobia had only a mere superficial scratch on the finger, whereas the man who had killed the jackal had received a severe and deep wound; was not treated at Kasauli; and yet has not developed hydrophobia.

(2) The incubation period in the fatal case was about 3½ months. According to Taylor's *Practice of Medicine*, the incubation period of hydrophobia is usually about 2 to 9 weeks, but sometimes several months.

(3) The mortality amongst the untreated in this instance comes to 1 in 6; or about 17 per cent.

I am keeping the other persons bitten under observation; both treated and untreated.

In conclusion I would like to thank Rai Bahadur Dr. Her Prasad for allowing me to send these notes for publication.—Yours, etc.,

R. A. SARAN,  
Medical Officer.

SHAHGANJ DISPENSARY,  
JAUNPUR, U. P.  
29th July, 1927.

(Note.—Dr. Saran's letter is admirable in its details of facts observed. If other correspondents would but send us similar authenticated details of cases observed, we believe that evidence of very considerable value with regard to the real incidence of rabies amongst the untreated could be compiled.—ED., *I. M. G.*)

#### KALA-AZAR AT HIGH ALTITUDES.

To the Editor, THE INDIAN MEDICAL GAZETTE.

SIR,—It may be of interest to your readers to report that I have found living sandflies in a European officer's bungalow here, at the level of about 7,000 feet above sea level; above the Dow Hill School.

I have previously seen two indigenous cases of kala-azar in this neighbourhood; both occurring in persons who lived at a level of more than 3,000 feet above sea level.—Yours, etc.,

S. B. MUKERJI,  
CAPTAIN, M.B.,  
Civil Medical Officer.

KURSEONG,  
DARJEELING HIMALAYAN RAILWAY.  
28th May, 1927.

#### RICKETS AND INFANTILE CIRRHOSIS OF THE LIVER.

To the Editor, THE INDIAN MEDICAL GAZETTE.

SIR,—With reference to some doubtful points raised by Dr. P. A. Narayana Aiyar of the Madras Government Ophthalmic Hospital in the March 1927 number of the *Indian Medical Gazette* on the observations made by Dr. A. S. Vaidyanada Iyer in his article on "Infantile Cirrhosis of the Liver," published in the December 1926 issue of the *Indian Medical Gazette* I would like to say a few words on the distinguishing points between rickets and infantile cirrhotic livers as observed by me.

(1) That rickets is due to the deficiency of fat soluble vitamine "A" has been definitely proved; whereas infantile cirrhosis of the liver has not, as yet, been proved to be a deficiency disease.

(2) Rickets is comparatively rare in India and the rarity is attributed to the regular and frequent massage of children with organic fatty oils, such as gingelly oil in the South, coconut oil in Malabar, and mustard oil in Northern India, even among the poorer classes of people. The few cases of rickets that are met with are found mainly among the poorer classes; but cases of infantile enlargement of the liver almost exclusively occur in the richer classes of the Hindus, especially in vegetarian families.

(3) The main pathological changes in rickets occur in the bones. In infantile cirrhosis of the liver the bones are not at all affected.

(4) The majority of cases of rickets occur between 6 and 12 months of age. Infantile cirrhosis of the liver occurs between one and two years of age.

(5) Delay in the eruption of the teeth is common in rickets, whereas it is not the case in infantile cirrhotic livers.

(6) The prognosis is good in rickets; on the other hand the prognosis in infantile enlargement of the liver is grave.

It is true that the signs and symptoms of advanced cases of infantile cirrhosis resemble those of rickets; but one can easily recognise a case of infantile cirrhosis