## Original Artigles.

A CASE OF HYPERTROPHY OF THE TOES.

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The patient was a Hindoo, 22 years of age. Description of the deformity.—The bones of



(a) Side-view.



(b) Planar-tview

the second and third toes of the left foot are very much enlarged. Each toe measures three inches in length and two and a half inches in circumference. The terminal phalanges are slightly curved towards one another, giving the part a claw-like appearance. The metatarsal bones are enlarged proportionately to the increase in size of the phalanges. The soft tissues in the plantar surface of the enlarged metatarsal bones are much thickened, forming a large pad which almost obscures the other toes when the foot is

viewed from its under surface. The remaining toes of the deformed foot are considerably smaller than those of the normal foot. This diminution in size is most marked in the case of the big toe and the fourth toe.

The patient was desirous that the enlarged toes might be removed in order that he might wear a boot. Amputation was performed at the metatarso-phalangeal joints.

RELAPSING FEVER (SUNJAR)
IN THE

KUMAON HIMALAYAS.

BY

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As I recently had an opportunity of investigating an outbreak of relapsing fever some 60 miles from the Muktesar Laboratory in the Kumaon Hills which had been reported as an outbreak of "sunjar," which is thought by some to be a mild form of plague, a brief record of the facts observed may be worthy of being placed on record. The disease was greatly on the decline at the time of my visit, which was a flying one on account of other important work, and the following details are taken from my notes which were made on the spot.

On my arrival at the scene of the outbreak, I was informed that the epidemic had nearly died out, but a number of patients who had recently recovered were collected for my inspection, and a careful questioning of them elicited the following facts. In the village of Suwal, which is situated not far from Champawat in the south-east of the Almora district, the first person to be attacked was a woman aged 40 who had not recently left the village, and she died on the seventh day of her attack of fever. Seven days after this woman fell ill, a man, who lived in the next house, which was built side by side with the first one and in contact with it, was attacked by fever and within the next few days the whole of his family, consisting of a wife and five children, between the ages of 4 and 13, also got it. The fever lasted in these cases from eight to ten days, and then after an interval of four or five days of freedom from fever, it recurred and lasted from four to seven days. It is not necessary to follow in detail all the cases, but it will suffice to mention that in ten other cases the average duration of the first attack of fever was 7.7 days, of the interval of freedom from fever was 6.1 days, while the relapse averaged six days, figures which correspond closely with those of the classical descriptions of relapsing fever, while the extremes met with in the whole of the cases were within those given by Fagge for this disease. The other symptoms met with may be briefly summarised as being a sudden onset of fever accompanied by headache and pain in the back and limbs, loss of appetite, and often diarrhæa shortly before the cessation of the fever in either the first or second attack. In the interval there was an entire absence of fever, but considerable weakness and inability to do any work remained. The recurrence of the fever was also sudden, but the second attack did not usually last quite as long as the first one, and in no case did a third attack occur. After the fever finally ceased the patients only slowly recovered their strength, being unfit to do any hard manual labour for two or three months, another characteristic of relapsing fever. There were no other fatal cases among the few villages that I was able to investigate, but several fatal cases had been reported in other villages affected, which I was unable to visit, and which extended over an area of about 20 miles, and other cases beyond these limits have since been reported.

With regard to the infectiousness of the disease the following figures are interesting and conclusive. In six households attacked, of which I have the figures, there were thirty persons. As soon as the first case occurred in three of these houses containing twenty persons, twelve of the occupants were removed to other houses and all of them escaped the disease. Of the sixteen persons who remained in the affected houses fourteen got the fever and only two escaped. The incubation period varied from one to ten days after exposure to the chance of infection. All these facts again are typical of relapsing fever.

Finally, only one patient had not had a relapse at the time of my visit, and on examining him closely he appeared to have a little fever. The thermometer revealed a temperature of 100.2, and on examining his blood the spirillum of relapsing fever was found in small numbers, two being present in a field of an oil emersion lens in one specimen, while single ones could be easily found in a short time in every specimen examin-Inoculations of agar and gelatine tubes gave negative results, which is in accordance with the fact that this organism has not yet been cultivated outside the body. No monkeys were available for inoculation, so no further observations could be made on the organism. The proof of this outbreak being one of true relapsing or famine fever was then complete, and on inquiry it was found that these people were well off and had not suffered at all from privation.

I mentioned at the commencement of this note that the above described outbreak was called "Sunjar" by the natives of these parts, and a few remarks on the question of what are "Mahamari" and "Sunjar" may be appropriate in this place. From inquiries that I have recently made in the Kumaon hills it appears that the former term is applied in these parts to any epidemic disease which is attended by a very high mortality, and under this name I have had a typical outbreak of cholera described to me by villagers. On the other hand, any infectious disease which is attended by a comparatively low mortality is called "Sunjar," which term would probably includes such diseases as measles and chicken-pox, etc., if they occur in these

From an examination of the records, it appears to be certain that some of the outbreaks of so-called "Mahamari" are exactly similar to true plague, notable those of 53-54, which spread down to the districts of Bijnor and Moradabad, and of 1876-77. It is, however, equally certain that this form of the disease may be absent from the hills for several years at a time, as for instance between the years 1878 to 1881 when, although the whole of the villages of Kumaon and Garhwal was carefully inspected yearly and a special report made, no cases of this disease were found. Further, it seems very likely from the descriptions that some of the outbreaks that have been returned as "Mahamari" have been outbreaks of typhus fever and not of plague, and that the latter are comparatively rare. Again, the outbreaks of the plague-like disease nearly always begin in the higher parts of the district, which border on Tibet, and it seems very probable that they originate in that country, which together with Yunan appears to be the home of the plague, from whence it spread to Canton and Hong-Kong in 1893, and that it is more likely that the plague reached Bombay in that roundabout way than that it travelled direct from Garhwal to the Western part of India.