ished on the other. In three other less advanced cases, two showed marked diminution. One patient, however, had well-marked knee reflex on both sides. In advanced cases marked muscular atrophy occurs. This is often very evident in the interossei of the hand, and there is a tendency for the hand to assume the "griffin claw appearance." The resemblance to the condition in progressive muscular atrophy is sufficiently striking to suggest affinity in point of central lesion. At the same time the distortion of the hand is apt to be accentuated by morbid changes (attended with loss of substance) in the sheaths or substance of the tendons. Muscles, also, and their sheaths undergo change. In stretching the sciatic nerve the consistence of the biceps is often found to be altered. In some cases its substance is friable, and it is glued by adhesions to the cellular tissue around in such a way as to render definition difficult. Associated with this, healing power is distinctly below par. Then when anæsthetic leprosy is well established in addition to the deformities from loss of tissue and cicatrisation, the skin as a whole shows peculiarities: a dried parchment-like epidermis often traversed by lines at angles gives the surface a fish-scale-like appearance. There is in fact a condition of leprosy ichthyosis. The tubercular form is apt to be distinctly more severe. For one reason, it often coincides with the anæsthetic, being superadded. When tubercles are appearing or spreading there may be elevation of temperature. At an early period the face becomes distorted, with elevations from one to three or four lines in diameter, especially affecting the forehead, nose, and auricles, producing the characteristic leonine appearance, but scattered also over the limbs and, indeed, the whole body. At first the epidermis is not implicated. This process is not confined to the skin, but affects the mucous membrane of the palate, pharynx, nose, and alimentary tract, accounting thus for obscure digestive disturbances. The larynx is sometimes implicated. On one patient, now in the wards, a year ago I had to perform tracheotomy for tubercular leprosy lesion of the aryteno-epiglottidean folds. Even the eye does not escape. A patient lately in the hospital showed gradual progress of a tubercle from under the conjunctiva at the outer margin of the cornea, extending towards the centre with convex pink fleshy-looking edge, involving and fixing the iris.

Tubercles are more apt to ulcerate through the mucous membrane than at the skin surface. As far as the skin is concerned, where ulceration occurs it has appeared to me to arise as an area of softening and pus formation under the epidermis. Again, apart from actual tubercles, the hair-follicles seem to suffer, for the hairs become pale, brittle, and scanty. Clinically, I am inclined to think the sebaceous and sweat glands are also attacked, for there is a marked tendency to dryness and harshness of skin, with utter absence of secretions. Enlarged lymphatic glands can frequently be detected. In one such excised I failed to demonstrate the bacillum. With regard to complications, they are certainly not common. Antecedent syphilis no doubt influences ulcerative processes to a certain extent. I have recently seen a leper whose ulcerated throat I think illustrates this. One leper now in the wards had an epithelioma following a burn.

As treatment, iodoform, iodide of potassium, mercury, arsenic, quinine, phosphate of soda, and mudar root have been tried internally, while balsam of Peru and gurjun oil have been rubbed on externally. Carbolic acid and iodine have been used for wounds, nerve stretching has been adopted for anæsthesia and trophic ulcers. None of these is a specific. Lepers react well to generous diet. If we inquire into the Japanese "Goto" treatment, which is claimed as a cure,² we notice how large a part good diet plays. The bath treatment there recommended is also calculated to be valuable in a disease in which skin secretions are so disordered. But the polypharmacy of Dr. Goto rather shows that he also has hitherto failed to discover a drug specific. So far no remedy has been discovered which modifies the course of leprosy in a manner analogous to the effect of iodide of potassium and mercury salts on syphilis. Phosphate of soda appears to be of some value in doses of twenty to forty grains twice daily. Lately the mudar root (*Calotropis gigantea*) has been tried. It is a drug not dissimilar in its action to ipecacuanha. In doses of five to ten grains it acts as a diaphoretic. It has a certain reputation in India for leprosy. Its action appears to improve the condition of the skin. *Hydrocotyle asiatica*³

has also a similar reputation. Leprosy is, however, so irregular in its progress and so prone to become temporarily arrested that the results of drugs the administration of which does not produce early and definite improvement have to be accepted with caution. Especially is this the case with chaulmoogra oil. Distinct improvement follows the external application of gurjun oil, but copious dilution with sweet oil does not appear to detract from its activity.

Nerve stretching is most valuable as a palliative. During the past few years more than two hundred and seventy nerves have been stretched in this hospital,⁴ representing about one hundred cases of leprosy. Great improvement is often obtained in the tracts supplied by the nerves; but we cannot anticipate improvement in the face and parts supplied by cranial nerves, neither do we observe it. However slight the risk of contagion may be, I am emphatically in favour of segregation. Marriage should certainly be discouraged. In other respects lepers should be placed in easy comfortable circumstances, with good food and no hard work.

Kashmir.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

COLOTOMY BY GUNSHOT WOUND; FÆCAL FISTULA; RECOVERY.

BY A. VAUGHAN BERNAYS, B.A., M.B. CANTAB.

ON July 9th, 1889, I was hastily summoned to G. G—, aged thirteen, who had received a gunshot wound in the back while shooting blackbirds with his brother. I found the lad in bed, with no appearance of shock about him, but complaining chiefly of pain in the left inguinal region, radiating down the left thigh, probably due to irritation of the lumbar plexus. On examination I found a wound exactly midway between the centre of the crest of the left ilium and the last rib, penetrating in a funnel-shaped manner forwards and slightly outwards. On the surface it was about two inches and a half across, but it narrowed so as to barely admit the point of the finger at the bottom. The skin and the surface of the wound were blackened and burnt, owing to the fact that the gun was actually touching the boy's back when it was discharged. On making inquiries I found that, fortunately having run short of the "sinews of war," the gun contained barely a third of the ordinary charge. Placing the boy under chloroform, I succeeded in extracting several shreds of jacket and about a score of shot, and I made out clearly from the direction of the wound that the colon was probably injured, even if the cavity of the abdomen had escaped. The lad did well generally, his temperature never going beyond 101°, and became normal within the week. On the third day the patient's bowels, which had been somewhat confined before, were moved, and about a dozen shot appeared in the motion; at the same time the discharges from the wound became fæcal. This continued for about a fortnight, and then gradually ceased, the wound healing slowly. No treatment was adopted, save daily irrigation with weak carbolic and the insertion of a drainage-tube for the first few days. The case seems to me to be interesting, not only on account of the rarity of such a method of colotomy, but as illustrating the resistant power of fæces, the fact of the colon being loaded undoubtedly saving the patient from the serious risk of penetration of the abdominal cavity.

Solihull.

MENTAL SHOCK PRODUCING FALSE CONCEPTION IN A PREGNANT WOMAN.

BY ALLAN MINNS, L.R.C.P. Lond.

MRS. C—, a woman aged forty, the mother of several children, all born healthy, came under my treatment about eight months ago for profuse loss from the uterus. Upon examination the uterus was found to be slightly enlarged

² Ibid., vol. i. 1887, p. 39.

³ Ibid., vol. i. 1885, p. 444.

⁴ Ibid., vol. i. 1886, p. 1070; vol. ii. 1886, p. 325. Edin. Med. Journ., Nov. 1884, p. 433.