

urine, when required to be voided, is assisted by lifting up the tumour.

The causes of rose and elephantiasis may be divided into the predisposing and exciting. The first depend on a certain condition of climate, where damp and heat prevail, where intermittent fever is common. A debilitated state of constitution is favourable to the attack. Improper or insufficient food, languid circulation, an impoverished state of the blood, the nervo-lymphatic temperament, a long residence in warm latitudes, absent or deficient transpiration,—all predispose to elephantiasis.

The exciting causes are, local irritation, exposure to damp, febrile attacks, suppressed evacuations, long standing, or continued pressure. Drs. Hillary and Hendy add sudden changes of temperature.

Treatment.—The treatment of elephantiasis Arabica has hitherto led to very imperfect results, and has varied according to the view taken of the disease by different practitioners, until, at last, the greater number of patients have fallen into the hands of quacks and ignorant persons; and it is perhaps owing, in a great measure, to the apathy which the medical practitioners in the West Indies have evinced towards its consideration, that the unfortunate sufferers are forced to apply to any system which holds out a prospect of amelioration, if not recovery. It has been made a reproach to the medical profession, that failing to remove a disease by the aid of medicine, they too often resort to the knife, which cuts through many a Gordian knot without lessening it. It is hoped that the sketch of the following plan of treatment will induce others to give it a trial:—

The treatment of elephantiasis Arabica varies according to its primary and advanced stage, and is divided into local and constitutional means. At its commencement, when febrile attacks are common, when little swelling is present, and where no marked or permanent change of the skin is observable, it is necessary to have recourse to mild antiphlogistic remedies, as purgatives, emetics, diaphoretics. Venesection is rarely required; generally speaking, it does harm. Calomel and jalap, or the compound jalap powder, with small doses of tartar emetic, are useful: also, saline draughts, with sudorifics, followed up by the administration of quinine; afterwards, nauseating medicines should be given with bitter infusions and occasional tonics. The diet should be light and nourishing, and when it can be had recourse to, change of climate proves of the greatest benefit. The local treatment should consist in astringent lotions to the part affected, as Goulard water, sulphate of iron washes, spirits of wine and water, &c.; but these should never be applied cold, for they generally increase the pain. For this reason ordinary fomentations are useful. The swollen part should be supported by gentle bandaging, and when the pain is removed, if much swelling persists, increased pressure, with occasional stimulating or astringent frictions, should be had recourse to. Rest and the recumbent position should be enjoined. It is very necessary to watch the condition of the general health, and every means must be taken to improve it, by moderate exercise, bathing, and diet. A rheumatic or aguish diathesis should be guarded against. Where, however, the disease has advanced further; where the swelling is great, and the skin has become rough, hardened, and thickened; in fact, where it has assumed that condition peculiar to the disease, recourse must be had to the following measures:—The patient is to be confined to his room, and in severe cases to his bed, but only for a short time; a strong, firm bandage (made of Osnaburgh, or other strong cloth) should be provided, and careful pressure made from the toes upwards; a few strong purges may be given at first. It is wonderful to observe the remarkable changes soon produced. In severe cases, it is better to soak the leg freely in warm aromatic decoctions, and after careful drying and moderate friction, to apply the bandage tightly. The bowels are to be kept freely open; the state of the skin is to be watched, and diaphoresis should be induced by gentle means, if necessary. It is sometimes found useful to employ diuretics, although frequently the flow of urine is materially increased, inasmuch as the repression of the swelling seems to eliminate the fluid by the kidneys; the diet should be at first low, and afterwards gradually increased. In the course of a few days, under such treatment, the huge, misshapen limb is generally so much reduced as to require the bandage to be readjusted, which must now be done frequently, increasing the pressure each time, even to slight pain. The swelling subsides at first like magic, some inches every week, but, as it lessens, the treatment becomes more tedious, and requires patient, persevering

pressure. The ordinary mode of bandaging in these cases will be of little use; the pressure must be as severe as is consistent with safety. The patient at first bears an extraordinary degree of force without much inconvenience, but complains sometimes of great numbness and pain in the part, which, however, soon wears off; should it not do so, it will be necessary to slacken the bandage. As the swelling diminishes, the patient should use exercise more freely; but evacuations are still necessary, especially purgatives and nauseating medicines, with preparations of iodine, especially the iodide of potassium. Should the health appear to suffer, tonics, and even stimulants, may be required. After a time, the bandage may be used less often; and steeping the limb in fluid, with powerful friction, becomes useful: but the bandage should never be discontinued for more than a few hours, and never during exercise, except it be to accustom the joints to return to their usual freedom. In the course of a month or more, the swelling, under such treatment, will be found considerably reduced; the excrescence and unevenness of the skin become less marked, and at the distance of a few paces scarcely any difference can be recognised between the sound and the previously affected limb. But the bandage is not, on this account, to be laid aside, for, if so, the swelling returns rapidly. It is necessary to continue its application for many months, perhaps always; or a laced stocking, or some such contrivance, may be used with advantage. In some cases, it may, perhaps, be necessary to establish a small running sore, by means of a blister, or the potassa fusa, or the introduction of a seton may be substituted. It often happens, that patients whose legs have been thus reduced, become thin and debilitated, in which case the general health must be carefully attended to, and tonics or other medicines administered, as the case may require. By such simple means, then, as bandaging and evacuations, this frightful deformity may be so far removed as to insure to the patient much comfort, and physical as well as mental relief; and this circumstance is surely sufficient to urge its employment, where no more permanent recovery can be hoped for. It is not pretended that, by the resolution of the swelling, the disease is completely obliterated; for unfortunately, in most instances where the use of the bandage is not persisted in, a tendency to swelling recurs; but to know that, by such a method, a person so disfigured can be so far benefited as to enable him to mix in society, and to follow his customary avocations, without the usual disfigurements of the disease, is surely an object to any medical practitioner.

Where severe ulceration exists with the disease, it will be first necessary to diminish the size of the sore by ordinary means before proceeding with the bandage. Poulices, in the first instance, with stimulating lotions afterwards, will generally be found sufficient. A lotion of a drachm of nitric acid to a pint of water is of great service applied to the part, with strapping to approximate the edges of the sore, or a weak solution of the chloride of soda or lime may be substituted. It is seldom found that the ulceration resists such treatment, when combined with nourishing diet, occasional opiates, and ammonia internally. Small ulcers, when present, afford no obstacle to the application of the bandage; for with the contraction of the skin, and other tissues, they become obliterated. Dr. Musgrave speaks highly of mercury internally, to act upon the absorbents, and, in some cases, its use may be judiciously employed; but alone it will effect but little improvement. On the whole, as the treatment above advised never fails to insure marked improvement, it is scarcely necessary to suggest the use of mercury, unless under particular circumstances. Bandaging of the scrotum may appear difficult, but, considering the great size to which this organ obtains, it is more manageable than might be supposed. Amputation is scarcely ever required; severe cases of ulceration of the leg, or intolerable pain, may, however, call for its employment. When the swelling has been diminished by the application of the bandage, the disappearance likewise of the warty, rough, and fungous condition of the integument is remarkable.

Morbid anatomy.—When a limb affected with elephantiasis is dissected, the following appearances present themselves:—The integument is hard, rough, uneven, with irregular folds and creases; a warty or mouldy condition will be observed in some parts; little or no hair; the skin cracked, scaly, and raised up in some places; constriction observable across joints, bulging out elsewhere; nails, in appearance, like horn; marks of pores in some places, with a moist greasy feel; toes compressed into an almost solid mass. The integument, when cut through, presents