

the blood. Invasion of the lymph-nodes is easily combated by injection of carbolic acid or by extirpation, and the inundation of the blood is often marked by a febrile reaction which probably destroys many germs. A certain number, however, will gain a foothold in the capillaries and thus give rise to new embolic foci which develop later into new nodes. It follows that the pressure should never be excessive and should preferably be combined with other antibacillary methods. The simplest is the pressure of the hot flat iron, mentioned above. The use of plasters containing strongly reducing drugs (pyrogallie acid, chrysarobin), or a gentle massage, can also be recommended.

Next to physical methods, the application of chemicals for the local treatment of leprosy is of importance. Owing to the fatty nature of the leprosy bacilli, it is but natural that alkalies should play an important role. The simplest way of using alkalies is in the form of the caustic paste, which is applied pure and then covered with zinc-oxide guttaplast. In large areas, as in leontiasis of the forehead, it is better to use a vaselin ointment containing 1 to 5 per cent. of the paste, and then to apply some pure paste in addition upon the raised areas. The cauterized skin will heal best with zinc guttaplast, until the secretion ceases, when camphor-gynocard; guttaplast should be substituted. The paste is also excellent for lesions of the mucous membranes.

The tendency to form keloids, seen so often after the use of alkalies, may be avoided by cauterizing with alkalies only the first time, and substituting carbolic or hydrochloric acid for the later applications; or else injections of thiosinamine may be given, or thiosinamine be employed locally in the form of soap or plaster. Thiosinamine is also indicated where the nodes are exceptionally hard and are imbedded in sclerotic portions of the skin or where the usual methods no longer affect the process, probably owing to encapsulation of the bacilli in hypertrophic connective tissue.

The most commonly employed external remedies which are supposed to have a specific effect upon the protoplasm of the bacilli after the removal of the fatty and mucinous zooglea, are pyrogallie and carbolic acids, resorein, chrysarobin, sulphur, and ichthyol. Unna's own experience is most extensive with pyrogallie acid, a drug which is certainly not indifferent but the toxic properties of which can be accurately neutralized by giving dilute hydrochloric acid in doses dictated by the degree of darkening exhibited by the urine.

The ointment commonly employed for general inunctions contains 5 per cent. pyrogallie acid, 5 per cent. ichthyol, and