

quently recovered, collapse occurred after the administration of two fifteen grain doses of antipyrin at intervals of an hour, the temperature falling to 97° F. Quinine in fractional doses is substituted when the temperature is below 102° F., being used principally for its tonic effect. The cold coil has been used in a few cases.

Opium is largely relied upon to allay restlessness, induce sleep, and relieve pain. Pain is very seldom complained of; tenderness on pressure is usually its greatest manifestation. In the few cases in which peritonitis has been present, turpentine by the mouth and by enema has been used to relieve flatus. The question of opium *versus* saline purgatives is under consideration, but it is by no means considered advisable to prevent an occasional movement of the bowels. For weak heart, while digitalis is used, more is expected from alcohol and alimentation. Ergot is believed to be of use in preventing septic absorption, not only by favoring an empty and contracted uterus when used *post-partum*, but also, perhaps, by its action on the muscular tissue of the utero-vaginal canal and absorbents, in the presence of septic material. Other special complications and symptoms when present, are treated on general therapeutic principles.—Chas. P. Noble, M.D., in *Med. and Surg. Rep.*

THE TREATMENT OF INDOLENT ULCERS BY MULTIPLE INCISIONS.

The following method of treating indolent ulcers was devised by my honoured chief, Dr. A. Harbordt, and I am much indebted to him for his permission to make it more widely known. It has been applied with success for the last seven years in many private cases and in the wards of the hospital, and was described six years ago to the Medical Society of this city. It will be seen that it has claims to be considered a *radical* treatment, that is to say, it tends to remove the course of the morbid condition.

The chief reason of the small inclination to heal which these callous or indolent ulcers show, and of the great tendency to break down again which is observed in their cicatrices, is the defective nutrition, the inadequate blood-supply of the affected tissues. The margins of the ulcer consists of coarse cicatricial fibrous tissue with few blood-vessels, and its floor has an almost tendinous texture such as offers but little encouragement to cell-proliferation and regenerative growth. This fibrous and resistant induration is either a secondary result of the chronic irritation of the ulcer, as in varicose ulceration of the leg, or (as in *Case II.*, after necrosis of the skin) the floor of the ulcer is formed of tense non-vascular fascia, incapable of vigorous granulation and defying all the stimulating pre-

parations which might be applied to it. Even Weber's lateral incisions and Nussbaum's circular incision prove powerless in such a case; while transplantation, after the methods of Reverdin and Thiersch, is out of the question. Transplantation for success requires a healthily granulating surface, and here that is absent.

Our method is briefly as follows:—The entire ulcer is divided lengthwise by a deep incision extending far into the healthy tissue. Cross incisions are then made through the callous tissue into the healthy at intervals of about three-quarters of an inch. The incisions must go through not only the skin but through the underlying fascia; the wounds must graze widely. The bleeding, often profuse, must be stopped with tampons; and the whole wound, which it must be owned has rather a slaughter-house look, is done up with iodoform dressings. When after eight to fourteen days the dressing is changed, the difference in appearance is very marked. Healthy granulations are springing up in abundance from the gaping incisions, and soon cover the whole surface, reaching the level of the surrounding skin, from which the growth of the new epidermis is seen to advance rapidly. At this stage of course, when the loss of skin is great, transplantation may be effected and will now be useful.

The multiple incisions must of course be postponed till the ulcer is no longer foul, all necrosed fragments being first removed; this is in order to avoid the risk of septic infection of the deeper parts.

The advantage of the method is obviously that highly-vascular healthy parts are enlisted in the healing process of granulation, and thus not only the wound but also the resulting cicatrix are under more favorable conditions. It might be expected, and facts confirm the expectation, that this cicatrix is far stronger and more resistant than the thin covering which may occasionally be obtained from scanty granulations, after the use perhaps of every means in the surgeon's *armamentarium*, and with great difficulty at that. Such thin cicatrices, of feeble vitality from the outset, give way on the slightest mechanical or chemical irritation—the chafing of clothes, a slight scratch, or an acrid excretion—and the weary “cure” has to be begun all over again.

The method has been found especially valuable in ulcers lying over joints, the cicatrices of which are themselves endangered by continual stretching and movement, and at the same time limit the mobility of the parts involved. These troubles are successfully overcome by our method, as may be seen from the account of *Case I.* below. This was a burn extending over the whole flexor aspect of the arm and forearm, and the treatment by incision had to be carried out in more than one stage; some repetition was necessary, probably because