SOME OBSERVATIONS ON PENTOTHAL SODIUM.

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IN observing the effects of anaesthetics, the ideal conditions are those in which one has a standardised operation, one that would be sufficiently painful to the patient to gauge the depth of anaesthesia. In such an operation as in skin grafting a radical mastoid cavity one has these conditions. The patients are all moderately healthy adults, and the cutting of the Tiersch graft provides a standard stimulation which is a suitable gauge of the patient's insensibility.

For this purpose twenty patients had evipan sodium given intravenously, with omnopon gr. 1/3, and scopolamine gr. 1/150 as premedication, given 30 minutes previously. Eighteen patients had pentothal sodium, with the same premedication.

In observing the induction stage one saw that all patients having pentothal sodium seemed to show a more sudden change in respiration. In two cases there was a short period of apnoea with slight blueness, but both breathed satisfactorily without our resorting to artificial respiration. In one patient having evipan, an asthmatic, respiration ceased; the patient went blue, an intratracheal tube was passed and oxygen was given through the rest of the operation.

In the evipan cases there was some movement of the legs and contraction of the quadriceps muscle as the graft was being cut. In only one of the eighteen having pentothal sodium was there any quadriceps contraction. In both series of cases the patients were sufficiently deep for the insertion of the graft, the average duration of operation being about twenty minutes.

In observing the after-effects, the patients who had had evipan sometimes came round rather boisterous and un-
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controllable. The patients having pentothal tended to pass into a deep sleep and wake up after a few hours as if waking from natural sleep. It is difficult to draw conclusions from this type of observation as the personal idiosyncrasy of the patient both to the anaesthetic and to the premedication must be taken into account, but the impression was gained that the post-operative effects of pentothal sodium are the better.

Reviewing the relative merits, pentothal sodium is an anaesthetic which, from the observation of these cases, has no greater risk than evipan, and gives a greater degree of anaesthesia as shown by enabling a Tiersch graft to be cut without stimulating the quadriceps, and has possibly slightly better after-effects.

One unpleasant but apparently not serious disadvantage is that it appears to be an irritation to the subcutaneous tissues, and if being given subcutaneously, there is a painful reaction in the subcutaneous tissues. Two cases were seen in which the drug was given subcutaneously and the arms treated with fomentations afterwards.

When seen about a week after the injection, both patients complained of tingling down the anterior surface of the forearm, and of a painful lump in the ante-cubital fossa. On examination we found that there was a hard tender nodule, apparently fibrous, in the subcutaneous tissue at the site of the injection. They complained of tingling of the arm between the elbow and the wrist, and were found to have very considerable loss of sensation over a narrow strip of skin about two inches wide from the elbow to the wrist joint, presumably due to involvement of the volar branch of the anterior cutaneous nerve of the forearm. In one case, after three months the nodule was still palpable, but not painful, and there was no hypoæsthesia.