

3. *Regional Anæsthesia*.—By this term is meant the blocking off of a particular area from its nerve supply, *e.g.*, in the case of the arm the blocking by Novocaine injection of the brachial plexus right up in the root of the arm so that the whole limb becomes insensitive and paralysed. This is easily achieved by passing a needle over the top of the clavicle down on to the nerve trunks and injecting a few c.c. of Novocaine. This method is ideal as it reduces muscle spasm, and leaves a perfectly confident patient with a long period of immunity from pain.

When surgical excision under a suitable anæsthesia is complete, the limb must be set suitably. Once again the ideal method is simple. Plaster of Paris bandages have saved quite as many lives as the Thomas's splint. The important thing when doing a skin plaster is to allow some room for the cedematous swelling of the wound and to watch the finger tips for any sign of a blocked circulation. The other essential is to set the limb in the position of function, *e.g.*, with the elbow bent to nearly 90 degrees. If by some mischance the progress of the case is complicated, and a stiff joint ensues, a limb set in the position of maximum use can be put into service without further surgical intervention.

The type of case outlined above is simple to treat and should be got up early, and such casualties usually make cheerful assistants in the minor routine of the ward.

—By Courtesy of "The Nursing Mirror."

Wounds of the Head

TREATMENT OF POSSIBLE CASES DESCRIBED BY K.W.C. SINCLAIR LOUTIT, M.B.E.,
M.A., M.R.C.S., L.R.C.P., MEDICAL OFFICER FOR CIVIL DEFENCE, FINSBURY.

Two Typical Cases.—Two men lying behind light cover on a scorching day had pushed their tin hats back. A burst of machine-gun fire penetrated the cover and they both received head injuries. They were dragged clear while unconscious, the wounds covered with field dressings, during which process one man started groaning. Two hours afterwards they arrive at your Casualty Concentration Post.

Condition on Reception.—*Case 1:* This man is conscious, though a little confused as to the circumstances of his wound. Removal of the dressing shows nothing more than a gash of the left temporal region some five inches long, following, roughly, the direction of his hair parting. His hair is matted with blood, though the flow has now abated.

Case 2: At first sight this man appears conscious. He is breathing stertorously and gives a regular groan every two or three breaths. His hands are free of the blankets, at which they are plucking. If a hand is taken, he grips with some vigour; this gradually relaxes. Examination of his wound shows what looks like an irregular tear across the front of his head from side to side. The whole picture is obscured by blood-matted hair, amongst which fragments of white brain tissue can be seen.

Immediate Handling and Treatment.—No wound can be treated until its extent is known. Both men should, therefore, be freed of equipment and damp clothing and well covered with blankets. The hair around the wound should be cut away gently with scissors, leaving a good three or four inch margin. If there is any sign of nits in the hair, the whole head must be clipped short. If anyone is skilled in the use of a razor, the margin around the wound should be shaved away from its actual tract. Blood and clot lying superficially should be removed with a sterile swab.

Case 1: This man should be propped up in bed—he will be well enough to co-operate—and the wound (after the shaving) washed out with sterile saline or plain boiled water. It will then be seen that the skull is intact, though actually scored for

half an inch by the bullet. Unless the man is really nervous, he will probably put up with having the wound sutured without an anaesthetic. If an anaesthetic is desired, or if the ragged nature of the skin edges demands excision, a local anaesthetic must be injected into the tissues around the wound. Excision and suture can then proceed. The history of transient unconsciousness at the time of injury, together with the man's confusion with regard to the incident (retrograde amnesia) show that there has been concussion—i.e., bruising of the brain from the blow of the passing bullet. The longer the period covered by his loss of memory, the worse the concussion. In view of this, care must be taken to exclude the possibility of graver damage to his brain. His pupils must be examined for inequality. The bony base of the wound must be looked at for any fissure. The appearance of a black eye, unless explained by a fall, would indicate a fracture of the bony wall of the orbit.

If any of these signs are present, rest, darkness and quiet must be more rigidly enforced, and the patient watched for signs of deterioration towards the condition of Case 2. His pulse rate also must be watched for the steady rise which will accompany meningeal hæmorrhage. Apart from these snags, the patient should progress uneventfully; scalp wounds are resistant to sepsis, and concussion recovers on its own with rest.

Case 2: This man cannot co-operate and will eventually prove very troublesome to nurse. His wound, after preparation of the surrounding area, must be cleansed in the same way as Case 1. In this case, however, the limits of the wound go far below the bony floor seen in Case 1, and it is not practical to explore it in the same forthright way. It must not be imagined that loss of large quantities of brain tissue is necessarily fatal.

Case 1 will become increasingly more restless, and it will be hard to determine how far his state is due to oedema of the brain and how far to destruction. In either case, treatment is the same and the issue of the case will decide. The first thing to obtain is as complete a surgical toilet of the wound as the resources of the post will provide. The second is to do all that is possible by way of aseptic dressing and medication with sulphanilamides to prevent sepsis; and, thirdly, the patient must be rested and nourished; the rectal route is the obvious one, though the patient should be tried for a swallow reflex.

Head cases of this type often become noisy, and they are best controlled by injections of luminal (sodium phenobarbitone, grs. 1½). Civil Defence Posts are provided by the Government with a combined injection of hyoscine, with soluble phenobarbitone which would be useful in this respect. It must be remembered that the tolerance of such cases to drugs is increased and that doses greatly in excess of normal may have to be given before control is achieved. In general, the greater the dose, the worse the prognosis. These cases of extensive brain damage are very distressing to other patients and should, at the least, be nursed with screens. If the patient's state is due more to swelling of the brain after the injury (traumatic oedema), startling improvement occurs on the second or third day, and will continue, sepsis remaining the main enemy. If this improvement is not noticed, and if there is a continuous discharge of cerebral matter from the wound together with feeble pulse and plucking fingers, the outcome is usually fatal.

It is hard to be cheerful about patients of the type of Case 2, but there is nothing more heartening than to assist in the recovery of a case which, initially, one secretly thought to be hopeless.

—By Courtesy of "The Nursing Mirror."