

have been typed. There is no serum which can be given to prevent pneumonia as the disease is an inflammation of the lungs caused by many kinds of pneumococci. All in all there are 31 kinds of pneumococci which can only be differentiated under the microscope. Statistics show that in the first 50 cases reported after inoculation only 2 deaths occurred. The normal mortality rate in pneumonia is one out of four.

MRS. G. R. STELTER.

BRAIN SURGERY: SOME NURSING POINTS

*Report of a lecture demonstration given to the Sister Tutor Section of the College of Nursing by H. CAIRNS, F.R.C.S.,
Nuffield Professor, at the London Hospital.
(By Courtesy of Nursing Times.)*

THE NURSE'S PART IN PRE-OPERATIVE INVESTIGATIONS

Brain tumours are common. In the special clinic at the London Hospital 15 out of the 20 beds allotted to neuro-surgery are usually occupied by cases of cerebral tumour. These tumours are often very difficult to localise. Only about half the plan of the brain is known, so any attempt to localise a tumour is like trying to trace the breakdown of a complicated telephone system with plans of only half the system to go upon. If the plans were complete it would be comparatively easy, but, as they are not, exhaustive investigations have to be made.

Bedside Examination

The history is taken from the patient and relatives, and the patient is examined at frequent intervals. The visual field is ascertained, the skull is X-rayed, and ventriculography may be performed. In 80 per cent. of the cases a careful bedside examination will give the clue to the site. In others diagnosis is assisted by ventriculography. The nurse's observations are most valuable in cases of cerebral tumour. She should note the degree of unconsciousness, and whether the patient responds when spoken to, when touched, or pricked, though the response in some cases may only amount to a change in respiration. On the other hand, the coma may be so deep that the patient does not react to stimulation at all. A patient with a cerebral tumour has periods of unconsciousness. The nurse should note if such a patient moves his limbs when he is turned, and, if so, which limbs. The character of the respiration is important. If the respirations are normal the patient is not in any immediate danger. If he has Cheyne-Stokes breathing or other irregularity, such as periods when he does not breathe at all, the condition is more critical. It is also important to report any inequality of the pupils.

Localised Fits

The careful observation of fits will yield important information. When the fits are generalised they will give no clue to the site

of the tumour. But if the fits are localised—for example, beginning in the finger of one hand, extending to the hand, arm, side of face, and so on—such details may lead to diagnosis. Slight fits are important; also any defect remaining after the fit has passed.

The Nurse's Duties

The duties of nurse during a fit are:—

1. To secure the safety of the patient by attention to the tongue, keeping the air-way free, and preventing the aspiration of material into the lung.
2. To screen the patient from the sight of others.
3. To observe the patient.

Inexperienced nurses, who may be frightened by such cases, should be told that patients rarely die in a fit.

Observations

When a patient has a fit the nurse should try to supply answers to the following questions:—

Where does the jerking begin and how does it spread? Do the eyes turn to one side? If so, does the head turn with them? Is speech lost before consciousness? These points should be written down immediately. The nurse cannot concentrate on the fit only, as she has to attend to the patient, so the facts will be forgotten if they are not committed to paper. This is a valuable exercise for both doctor and nurse in the observation of illness.

The nurse should find out all she can about the habits and personality of the patient both from himself and his relatives. Any delusions should be noted, also any difficulties with regard to speech, feeding himself, or finding his way about the ward.

Operations on the brain are very lengthy. Every bleeding point must be stopped and the brain must be very gently handled. The theatre must be warm and the patient arranged comfortably on the operating table. The blood pressure and respirations are estimated every five minutes. If severe haemorrhage is anticipated a cannula is inserted into a vein before the operation is begun, and saline allowed to drip in slowly to prevent clotting at the site of injection; then a blood transfusion can be given at once if necessary. Asepsis is most important. Everyone in close contact with the exposed brain should wear a mask containing a layer of cellophane, which makes it impermeable. Dust must be kept down by seeing that doors are shut and that the staff move with care. Culture plates exposed in a theatre over the week-end with no traffic through remain sterile. When operations are in progress and there is consequent activity in the theatre, some colonies of germs always grow.

Successful Cases

The lecturer then showed the following cases:—

1. A patient with cerebral abscess had developed a post-operative haemolytic streptococcal meningitis. For two weeks organisms were found in the cerebro-spinal fluid after which it was reported sterile. The patient, who had been very drowsy,

was better, and said he felt better, though the lecturer remarked later that he was "not out of the wood yet." He had been treated with Prontosil and anti-streptococcal serum. A lumbar puncture needle had been left *in situ* and the fluid allowed to drain into a sterile bottle. The patient had been rolled for movement while this treatment was in progress.

2. A child of four years old had been operated on for cerebellar tumour. The child was making a good recovery, but by giving it a biscuit the lecturer demonstrated inco-ordination of movement, though this was comparatively slight since the operation.

3. A woman had had a spinal tumour removed nine days previously. The patient was nursed on a modified Lawson Tate bed with a removable head. The patient was put in Fowler's position by manipulation of the bed. The feet were in "shoes" to prevent foot-drop. She had not walked for two years and was originally diagnosed as disseminated sclerosis. The lecturer said she would walk again, though it might take one or two years. The spinal cord has great powers of recovery.

4. A woman had been operated on for a cerebellar tumour; the front hair had been left and allowed to grow, so the shaved area was fairly well covered by it. Facial paralysis was being treated by a support to the angle of the mouth. There was also loss of the corneal reflex. As the cornea was insensitive to irritation an ulcer might easily have occurred, so the eyelids of the affected eye had been stitched together temporarily, so that the cornea might be protected.

5. A man was awaiting operation for removal of a foreign body from the brain. The patient was a soldier invalided home from Palestine. The lecturer put several questions to him, the patient's replies illustrating a peculiar type of aphasia in which he showed himself unable to name objects. When asked what he had had for dinner, after hesitation he said it was a little animal that ran along the ground. He could not produce the word "chicken."

KALA-AZAR

SISTER MARY HELEN, Mitford Hospital, Dacca, Bengal.

Kala-Azar is a disease due to infection with leishman donavon parasites. It occurs epidemically and endemically in many parts of India but is rarely found in other tropical countries except in the Soudan in Africa. The disease is characterized by an irregular fever frequently running a very chronic course and if left untreated may last one or two years.

The disease is confined to low lying areas and in India is endemic in the central and eastern provinces. No age is immune and both sexes are equally susceptible but usually far more male than female patients are seen in the hospitals.