OUR PRIZE COMPETITION.

WHAT ARE THE PROBABLE CAUSES OF OTORRHŒA AND HOW WOULD YOU NURSE SUCH A CASE? WHAT COMPLICATIONS MIGHT ARISE, AND HOW WOULD YOU RECOGNISE THEM?

We have pleasure in awarding the prize this week to Miss S. F. Rossiter, Royal Naval College, Osborne, Isle of Wight.

PRIZE PAPER.

To understand causes and complications of otorrhœa one must be acquainted with the anatomy of the ear. The ear consists of:

(1) *External ear or Pinna*, connected by short passage, called Auditory Meatus, with

(2) *Middle ear or Tympanum*, containing three ossicles or small bones, namely: Incus, Anvil, Malleus. It is shut off from external ear by a delicate structure called the Tympanic Membrane.

(3) *Internal ear*, containing the essential mechanism of hearing, consisting of the Labyrinth or entrance, the Cochlea and semi-circular canals communicating with brain by means of auditory nerve. The semi-circular canals are also concerned in maintenance of equilibrium.

Otorrhœa is a common complication of Scarlet Fever, Measles, Diphtheria, Tonsilitis, and Naso-pharyngeal Catarrh. It is easily caused by too forcible irrigation of the post-nasal spaces. It sometimes occurs after operation for removal of septic adenoids.

From the foregoing it will be seen that the primary cause and seat of infection are the throat and pharynx.

It can be divided into four types: (1) Acute Catarrhal, (2) Chronic Catarrhal, (3) Acute Purulent, (4) Chronic Purulent.

In the Acute Catarrhal condition, which is most prevalent in children, if there is lasting acute pain, the tympanic membrane is sometimes punctured by surgeon, the operation being called Myringotomy. Heat applied in the form of fomentation behind and in front of ear, or the application of a rubber hot water bottle, often relieves the pain. The meatus must never be so blocked with wool that drainage is interfered with.

Chronic Catarrhal Otitis Media is the result of an unresolved acute attack, and frequently the cause is Naso-pharyngeal Catarrh. In this case the treatment is usually directed to the pharynx, and here the greatest care must be exercised by the nurse, for if irrigation of pharynx is ordered it will be easily seen that great damage can arise from forceful injection of fluid. If this is done by means of douche can with tubing and nozzle, the force can be regulated by pressure upon the tubing and by height at which douche can is held.

In the Acute Purulent type, which usually results from inflammation caused by pathogenic germs spreading along Eustachian tube into middle ear, suppuration is set up, which may perforate tympanic membrane and drains into meatus. If irrigation or douching be ordered, it must be carried out with the greatest care and gentleness. The nurse should stand opposite affected ear, which should be lifted between thumb and forefinger upwards and backwards, thus straightening the canal. The lotion, which is usually some weak antiseptic, *e.g.*, Boracic, should be prepared at 95° F. The nozzle used should be directed from just inside pinna towards the roof of canal, thus enabling the return fluid to travel out along floor of meatus. The meatus is afterwards carefully dried out. Where there is a copious discharge, excoriation of the canal and external ear may occur. This may be avoided by dusting the part with fine boracic powder; the ear is then covered with pad of wool and bandage. If a pledget of wool is placed in ear the nurse must observe that it is not pushed into meatus, thus preventing free drainage.

Many surgeons do not advocate douching during the early stages, but like the ear just swabbed out with wool or gauze drain. If the discharge is thick and tenacious, sometimes warm Hydrogen Peroxide drops are inserted before swabbing out.

In the Chronic Purulent type the cause is often found to be caries of the ossicles. The treatment is generally more rigorous than in the acute stage, and frequent irrigation may be ordered.

The general treatment consists of bed, nourishing diet, and avoidance of constipation.

The complications are:—(1) Loss of hearing, from damage to auditory nerve; (2) Mastoid abscesses, from infection of cells in temporal bone, sometimes resulting in necrosis of mastoid process of bone; (3) Meningitis; (4) Cerebral abscess; (5) Phlebitis, causing often thrombosis in lateral sinus and jugular vein. The unfavourable signs to be watched for and reported are:—(1) Sudden cessation of discharge, with rise of temperature; (2) Severe headache and drowsiness; (3) Rigors; (4) Vertigo and Nystagmus; (5) Vomiting.

The pulse is often found to be slow, full, and sometimes irregular.

HONOURABLE MENTION.

The following competitors receive honourable mention:—Miss Winifred Appleton, Miss M. James, Miss P. Thomson.

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