



Examination of the ENT Patient

INTRODUCTION

Proper history taking is the most important part of any medical examination. The same is true for ENT examination (an idea about the various diseases can be had from the history elicited from the patient). For example, a person whose house is located close to the railway tracks and who has developed impaired hearing over a period of time is probably suffering from noise-induced hearing loss. Similarly, a patient who complains of recurrent sneezing and watering of the eyes for a long period of time has probably got allergic rhinitis.

EQUIPMENT FOR ENT EXAMINATION

The basic equipment required for ENT examination may be categorised into two types. These are:

- Illuminators
- Instruments for examination

The various equipments used for examination are also used for performing minor procedures and surgery of the ear, nose and throat.

Illuminators

Proper illumination is one of the most important prerequisites for ENT examination. Proper visualisation of the ear, nose and throat requires a special type of illumination which focusses light at the point of examination or surgery. Various different kinds

of illuminators have been developed and are used regularly by the ENT surgeons.

Bull's eye lamp and head mirror The Bull's eye lamp consists of an electric bulb of 100 watts housed in a metal cage. The cage is placed on a stand whose height and position can be adjusted according to the needs of the consultant surgeon. The cage has a metallic cover with a convex lens on one side which makes the rays of light parallel. This parallel beam falls on the head-mirror worn on the head of the examiner. The mirror reflects the light at the appropriate place and brightly illuminates the area to be inspected.

The head mirror consists of a concave mirror which diameter is 9 cm and has a central aperture of 2 cm diameter. It converges the rays of light at a focal point which is 20 cm (focal length). The aperture of the mirror is kept in front of the right eye of the examiner and this allows the examiner to have a binocular view of the structures to be examined. The source of light is kept behind the left shoulder of the patient. Mirror is worn on the head with the help of an adjustable head band.

Bull's eye lamp and the head mirror are the most commonly used sources of illumination in ENT (Fig. 1.1A).

Electric headlight In this illuminator, the source of light and the mirror to focus the light are so made that they are worn on the head of the examiner. The source works either on electricity or battery (Fig. 1.1B).



Fig. 1.1A: Bull's eye lamp and head mirror

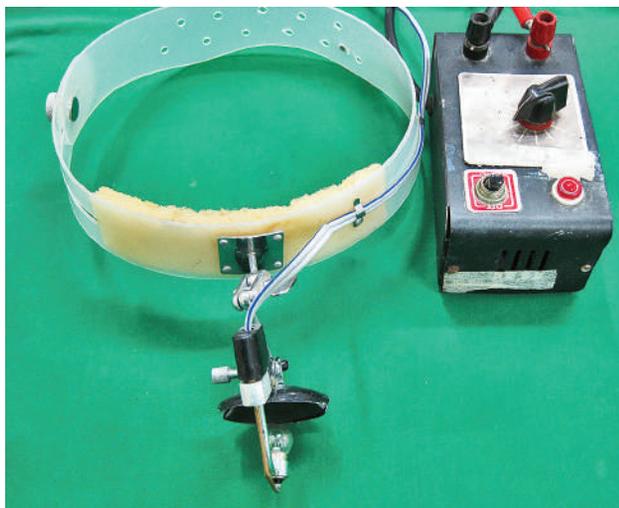


Fig. 1.1B: Electric headlight



Fig. 1.1C: Fibre-optic headlight

Fibre-optic headlight This is a recent development. It provides extremely good illumination, however, it is expensive (Fig. 1.1C).

Otoscope This is a self-illuminating instrument where the source of light is a bulb which runs on battery which is loaded on the handle. There is a convex lens which helps in examination of the ear with a magnification of 2X (Fig. 1.1D).

Otoscopes may be fitted with a rubber tubing and bulb which can be used for Sieglisation, called 'pneumatic otoscopy' when performed using an otoscope. This allows the examiner to get an idea about the movement of the eardrum, presence of a labyrinthine fistula and this may also be used to introduce powdered medication into the middle ear through a perforation.

Surgical microscope This is best for examination and surgery as it enables the examiner to visualise minute details under high magnification. It is mainly used for ear surgery but also can be used in nose and laryngeal surgery, e.g. ethmoidectomy, removal of vocal cord nodules by microlaryngoscopy, etc. (Fig. 1.1E)

Others Rigid sinuscope (nasal endoscope) is being extensively used in diagnosis of diseases of the nose. It has a fiberoptic source of light and built-in optics for visualisation. Similarly a direct flexible or rigid laryngoscope illuminates and also helps in visualisation of the larynx. Oto endoscope is used for diagnosis of ear



Fig. 1.1D: Otoscope



Fig. 1.1E: Surgical microscope

disease as well as for surgery. It helps to see the areas difficult to visualise by microscope. Also nasal and oto endoscopes are available in various angulations of lens, thus further improving vision during surgery. Diagnostic sinus endoscopy and fiberoptic laryngoscopy can be done as OPD procedures.

Instruments for Examination

These have been dealt within details in specific chapters.

POSITION OF THE PATIENT AND EXAMINER

Patient is asked to sit on a chair which should preferably be an ENT examination chair. The examiner sits facing the patient. The Bull's eye lamp is placed behind the left shoulder of the patient. Examination of the neck is best carried out when the examiner stands behind the patient with the patient's neck flexed. (Fig. 1.2 A, B, C and D)

EXAMINATION OF CHILDREN

A cooperative child can be examined without any difficulty. Taking the child into confidence is a very important aspect of the examination. An uncooperative child is examined by asking the parent to take the child on their lap in such a way that the legs of child are held firmly between those of



Fig. 1.2A: Examination of ear with otoscope



Fig. 1.2B: Examination of ear with speculum using on electric headlight



Fig. 1.2C: Examination of nose using a fibre-optic headlight



Fig. 1.2D: Examination of throat using a fibre-optic headlight

the parent. The parent fixes the hands of child with her one hand and places the other hand over the child's forehead to prevent head movement during the examination (Fig. 1.3A, B and C).

In most of the cases, the examination can only



Fig. 1.3A: Examination of ear using a Bull's eye headlight



Fig. 1.3B: Examination of throat



Fig. 1.3C: Examination of throat using Bull's eye headlight

be carried out with illumination. Instruments are generally not required as the child does not have hair in the ears or nose and the anatomical positions of the nose and ear are such that the examination is very easy.