

Elaborate models, however minutely correct and carefully studied, leave one without any clear image of the two most important facts they should demonstrate, namely, the planes in which the canals work and their relative position to each other. The above scheme gives a clear after-image of both these points and may be easily made in a few minutes. Paper, cardboard, tin or thin brass-sheet may be used. The model represents the canals of the left side, but if folded in the reverse way and looked at as a transparency it will show relations as of the right side. The same effect may be got by observing the mirror image. A model made of wood with hinges along the long broken folding lines, and painted on both sides and marked right and left canals respectively, makes a useful class specimen for handing round. You will see upon making the above model the exact profile of the canals as viewed through the transparency of a corrosion specimen of the petrous bone. This profile could never be represented by the three sides of a box as is usually tried.

Based upon the above, I am having constructed a bilateral model, to fasten on a patient's head. It is for the purpose of demonstrating and recording the after-nystagmus as of a normal control under similar rotation.

CLINICAL NOTES.

DIGITAL RETRACTION OF THE EPIGLOTTIS DURING INDIRECT LARYNGOSCOPY.

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THE purpose of the following remarks is merely to emphasise the occasional value of the forefinger as an epiglottis retractor during indirect laryngoscopy, especially in those cases where the epiglottis proves a troublesome obstacle on account of its dependent position, or on account of excessive retroflexion resulting, for example, from the presence of an epiglottic cyst upon its lingual surface.

Excessive retroflexion of the epiglottis is of not infrequent occurrence. There are various ways of dealing with it. The digital method of meeting the difficulty is only brought forward now on the ground of its extreme simplicity and effectiveness.

As to the methods already at our disposal, these may be briefly summarised as follows:

- (1) A specially-designed positional relation as regards patient and observer.
- (2) Use of a suitable tongue depressor, and in such a way as to force the whole tongue downwards and forwards, thereby lifting the epiglottis from the posterior wall.
- (3) The employment of a specially-devised tongue-tractor—a double right-angled instrument—designed to exert strong forward pressure against the base of the tongue.
- (4) Direct retraction of the epiglottis by means of a suitably-curved probe.

(5) Insertion of a ligature through the epiglottis.

(6) Direct laryngoscopy.

Now as to Method 1, it can only be said that a successful result may be occasionally attained. There will always remain a considerable number of cases in which this procedure will be found ineffective.

Method 2 is applicable only to cases of moderate retroflexion, and its success rests upon the assumption that glottic traction will be adequately imparted to the dependent portion of the epiglottis.

Method 3 implies the essential manœuvre of 2, and it is sometimes successful. Very considerable pressure must often be used, and the epiglottis cannot always be made to share efficiently the passive glottic movement. It is, however, usually a more successful procedure than that immediately referred to.

Method 4 is almost always practicable in adults and should in all such cases be successful, assuming that the epiglottis itself is not the seat of disease or new growth.

Method 5 is unique. It affords, of course, the great advantage, given by no other method here referred to, of liberating both hands of the observer.

Method 6 would find its application in those cases wherein, for one reason or another, 4 and 5 are impracticable.

The method now advocated of dealing during indirect laryngoscopy with the retroflexed epiglottis is a method afforded by the use of the forefinger.

Local cocaine anæsthesia of the base of the tongue and of the posterior surface of the epiglottis is, of course, necessary.

Anæsthesia may be thoroughly completed by applying, by means of the finger-tip, a few crystals of cocaine to the posterior epiglottic surface.

The forefinger is now inserted, and the upper edge of the down-folded epiglottis is identified by touch. The terminal phalanx is now carried down to the posterior surface of the epiglottis, and the organ is firmly retracted forwards and slightly upwards against the base of the tongue. The pressure is sufficient, if necessary, to carry forward both epiglottis and tongue, and this is an important respect in which the method offers advantage over Method 4, the one most usually employed.

The mirror is now inserted, and the retraction, as just described, will be found to afford an excellent visual access.

It might be supposed that the finger itself would prevent a satisfactory view, but this is not the case. Every part of the upper aspect of the larynx can be very well seen. The method is simple, rapid and efficient.

Actual digital retraction of the epiglottis itself is not necessary in all cases. If the tip of the index finger be carried firmly down on to the median glosso-epiglottic ligament, and then used as a depressor and forward tractor of the tongue, it will be found that in a fair number of cases the epiglottis will adequately follow the tongue's movement.