

Modified Mitchellson endoscope holder

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Abstract

Mitchellson's ear speculum holder has been modified to act as an endoscope holder, in order to be used in endoscopic surgery of the nose or ear.

Key words: Endoscopes; Otorhinolaryngologic Surgical Procedures

Introduction

The endoscope has revolutionised surgery of the paranasal sinuses, skull base and, recently, the ear. It provides excellent visualisation and enables precise excision of pathology, with greatly improved control of the surgical field. The use of a video monitor has further improved visualisation and made teaching easier.

Endoscopic procedures are often carried out with one hand holding the endoscope while the other is used for surgery. This has its disadvantages, as the surgeon can only use one hand to perform surgery. This disadvantage is more pronounced in complicated cases in which both hands are required to perform a delicate procedure. We have developed a modified Mitchellson endoscope holder which enables the surgeon to use both hands to operate. It is suitable for use in endoscopic otology and rhinology procedures.

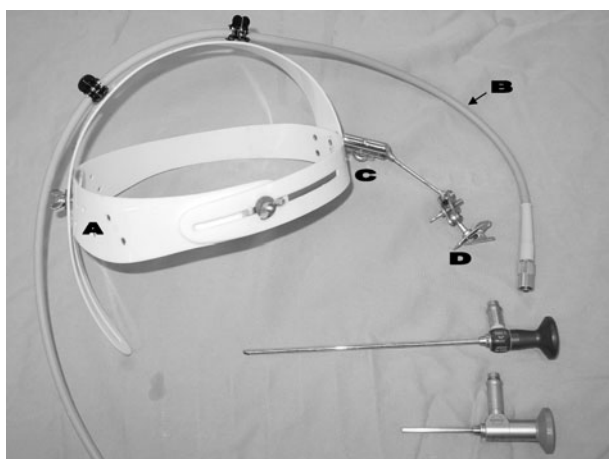


FIG. 1

The head band (A), with attached cable (B) and ball and socket joint (C). An ordinary clip (D) is attached to the ball and socket joint. Endoscopes for the nose and ear are also shown.



(a)



(b)

FIG. 2

Use of the modified Mitchellson endoscope holder during (a) nose and (b) ear surgery.

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Method

The Mitchellson head band is placed on the patient's head (it is adjustable to fit different head sizes). A ball and socket joint is attached to the head band, similar to the old fashioned head mirror used for ENT examination. Another ball and socket joint is fitted to replace the mirror part of the head mirror. This joint is fitted with a clip holder which can be used to hold an endoscope during ear surgery. The head band can be turned 90° frontally (anterior/posterior) and can be used to hold an endoscope during nasal or sinus procedures. Clips on the central head band allow fitting of the cable to avoid drag on the endoscope. The ball and socket joint allows mobility, enabling the surgeon to place the endoscope as required in order to visualise the surgical field. The surgeon is thus free to use both hands, whilst retaining the excellent visualisation enabled by the endoscope.

To the best of our knowledge, this type of endoscope holder is not in use elsewhere. Such a modified Mitchellson

endoscope holder enables completely hands-free endoscope use, for virtually all ear and nasal procedures requiring a speculum or endoscopic approach.

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