

Video-assisted laryngoscopy : useful tool with some growing pains

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Abstract : Video-assisted laryngoscopy is a rather new technique that has been developed for visualisation of the glottis in those cases where conventional laryngoscopy is insufficient to obtain that goal. Moreover, it can be a useful tool for teaching purposes (1). Without any doubt, video-assisted laryngoscopy is a very useful tool for the modern anaesthesiologist. However, comparison of the different available devices is problematical, because they all have some advantages and disadvantages.

We tried out the clinical use of four commercially available devices, the Laryflex (M.E.C.-Accutronic), the McGrath Video Laryngoscope (Surgical Company), the Glide Scope (Verathon Medical) and the Airtraq (Prodol – Teleflex) (2, 3, 4, 5). For the trained user, all devices were very user-friendly. However, some minor shortcomings need to be mentioned.

In cases of emergency difficult intubation, portability of the intubating device is a major item. We observed that some of the studied devices were rather cumbersome to handle and to install. But of course, this problem becomes insignificant with the growing experience of the user.

Another problem is that you need a certain degree of mouth opening, at least 15 mm. Therefore, in cases of diminished mouth opening, the system cannot fully replace fiberoptic bronchoscopic intubation.

During the procedure of 'trying to intubate', the studied devices were equivalent with other devices used for difficult intubation e.g. Fastrach,... . However, when using a videolaryngoscope, oxygenation is not possible during the period of intubation.

Videolaryngoscopy is an indirect technique. This has for consequence that fogging, saliva, debris and blood may blur the vision during endoscopy (6). Optimal light conditions are also necessary because bright sunlight degrades the image quality of liquid crystal displays (LCD'S).

Most of the time, visualisation of the glottis is better compared with direct laryngoscopy, but an improved view does not mean an improved ease of intubation. However, once the user gets familiar with this new technique, the manipulation of instruments under indirect vision becomes very straightforward. Almost all videolaryngoscopes need the use of a stylet, which means that the risk for tracheal damage can be increased (7, 8).

Economical aspects have to be considered. More sophisticated techniques produce a higher risk of damage and the necessary reparation. This also means that during the period of reparation, the instruments are not available,

unless we purchase more than one device. This may produce more costs. The unmistakable benefits of video-assisted laryngoscopy need to be weighted against these economical aspects.

Key words : Anaesthesia ; difficult intubation ; video assisted laryngoscope.

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