

RAPID SEQUENCE INTUBATION USING THE MCGRATH® VIDEOLARYNGOSCOPE

Dr Ben Shippey¹

Dr Dermot McKeown²

Dr David Ray²

¹Specialist Registrar and ²Consultant Anaesthetist

Royal Infirmary of Edinburgh, UK

Introduction

When cervical movement is restricted, laryngoscopic views are improved^[1], and intubation is quicker and easier^[2] using a videolaryngoscope when compared to a Macintosh blade.

Videolaryngoscopy therefore has potential advantages in the Emergency Department where tracheal intubation is often performed in patients with restricted cervical movement. The McGrath® videolaryngoscope (Aircraft Medical, Edinburgh, UK) is a new, self-contained videolaryngoscope with an integral colour viewing screen mounted on the laryngoscope handle (Figure 1). There are no reported series of rapid sequence induction of anaesthesia and tracheal intubation (RSI) using videolaryngoscopy. We have assessed the performance of the McGrath® in patients undergoing RSI.

Methods

We performed RSI using the McGrath® videolaryngoscope in 35 adult patients undergoing emergency surgery and recorded the laryngoscopic views obtained, number of attempts to complete tracheal intubation and any complications which occurred. We recorded the time taken to complete tracheal intubation in 24 patients.

Results

We obtained Cormack and Lehane grade I views in all patients. All but one tracheal intubation was successful at the first attempt. Oxygen saturation decreased transiently to 86% in one patient but we found no other complications. Specifically, no patient developed regurgitation or aspiration of gastric contents. The median (IQR) [range] time to complete intubation was 24.0 (20.0-31.8) [14.2-61.1] seconds. These times are similar to when the McGrath® is used in elective anaesthesia.

Conclusions

We conclude that the McGrath[®] produces excellent laryngoscopic views, is an effective device in RSI and has considerable potential to aid airway management in the Emergency Department.

References

1. Agro F, Barzoi G, Montecchia F. Tracheal intubation using a Macintosh laryngoscope or a GlideScope in 15 patients with cervical spine immobilization. *British Journal of Anaesthesia* 2003; 90: 705-6.
2. Lim Y, Yeo SW. A comparison of the GlideScope with the Macintosh laryngoscope for tracheal intubation in patients with simulated difficult airway. *Anaesthesia and Intensive Care* 2005; 33: 243-7.

Figure 1. The McGrath[™] videolaryngoscope.

