

Bullard Laryngoscope for C-Spine Injury

The rigid fiberoptic Bullard laryngoscope (BL) has been advocated for intubation of patients with cervical spine injury on the belief that it reduces spine movement. In this study from London, Ontario, 29 ASA Class I-III patients undergoing elective anesthesia were placed on a spine board. Each underwent four types of laryngoscopy, in random order: with the BL or Macintosh laryngoscope (ML), and with or without manual in-line stabilization (ILS) of the spine. No patient had cervical spine disease or injury, gastroesophageal reflux, or previous difficult intubations.

Multiple radiographs showed cervical spine extension to be greatest during intubation with the ML. Extension was reduced 50% with the BL and with the ML plus ILS, and more than 75% with BL plus ILS. All differences were statistically significant. Laryngoscopic views were better with the BL, and all views deteriorated when cricoid pressure was applied. Time to intubation was 12 seconds with ML, 20 to 25 seconds with BL and with ML plus ILS, and 40 seconds with BL plus ILS. No patient had oxygen desaturation.

Comment: The differences measured are not necessarily clinically meaningful, but this study demonstrates that use of the Bullard laryngoscope can minimize cervical spine movement with only a modest increase in intubation time. This laryngoscope requires considerable experience to use, however, and application in the ED awaits further experience and studies.

— *RM Walls*

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