44518 - RADIOGRAPHIC EVALUATION OF CERVICAL SPINE MOVEMENT DURING FLEXIBLE VIDEOBRONCHOSCOPY & LO-PRO GLIDESCOPE; A RANDOMISED CONTROLLED TRIAL

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INTRODUCTION: It is essential to prevent or minimize cervical spine movement in patients with c-spine injury. Flexible bronchoscopy (FB) is widely regarded as the gold standard for intubating patients with airway instability. The Lo-Pro Glidescope (LP-G) is a new improved video laryngoscope and may be associated with less c-spine movement. We aimed to compare c-spine movement using fluoroscopy during intubation with FB versus LP-G.

METHODS: After ethics board approval 28 consenting adults with no cervical spine abnormality were randomized to be intubated with either a FB or LP-G. Demographic data was collected. During intubation continuous video fluoroscopy of the cervical spine was performed. A neuroradiologist and a spine surgeon assessed c-spine movement independently. The primary endpoint was maximum angulations during the intubation sequence (Occ-C1, C1-2, C2-4, and C4-5). Power of the study was determined by considering a 1-degree change in angulations as significant. Mann Whitney U test was used to compare maximum range of motion and Wilcoxin signed rank test for interobserver differences.

RESULTS: No significant differences between FB and the LP-G groups in demographic data. Intubation times were comparable between LP-G (31+ 2 sec) and FB (31+ 3secs).

Max. change mean $\pm$ SD, * $p < 0.05$, ** $p < 0.01$

DISCUSSION: The Lo-Pro Glidescope has significantly greater movement than the Flexible bronchoscopy. This study has shown that there is some movement associated even with the Flexible Bronchoscopy.

REFERENCES: 1. Turkstra TP, Crane RA, Pelz DM, Gelb AW. *Anesth Analg*. 2005;101:910-5
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