Evaluation of medical students success rate in tracheal intubation by direct and glidescopic methods in Fathemi hospital of Ardabil in 2019

Abstract

Background & objective: Direct laryngoscopy technique is the gold standard technique for securing airway among surgery patients. It is a complex skill and requires a lot of practice. Direct laryngoscopy uses a direct view and special maneuvers to see the glottic space. In contrast, video laryngoscopy technique uses an indirect view by a camera and reduces the need for direct intervention on airway structures. Because there were different results in comparing direct laryngoscopy with video laryngoscopy, we intended to measure success rates of intubations using these two different techniques.

Methods: This study was a descriptive research and is done in a group of medical interns after they are teached by anesthesia residents in their anesthesia rotation .Patient population were 17 to 70 years old with ASA class 1 or 2. Number of General anesthesia candidates in each group were 49 people.. Intubation success, glottic view degree, hemodynamic changes, oxygen saturation changes prior and after intubation and complications such as teeth trauma, damage to gums and tongue were tracked by interns. Data are analyzed using T, Chi-square , Exact Fishers tests.

Results: In terms of oxygen saturation changes and intubation timing, there was not a significant difference between the groups. Intubation success rate in the first attempt was significantly higher in the videolaryngoscopy than in direct laryngoscopy. Glottic view degree (Cormack-Lehane score) in the videolaryngoscopy was better than direct laryngoscopy. Mean Arteial Blood Pressure changes were significantly higher in the direct laryngoscopy than in the videolaryngoscopy. Mean intubation time was 34 seconds in in Glidoscopy group and 36 seconds in direct laryngoscopy group.

Conclusion: Intubation success rate in first attempt and glottis view in the videolaryngoscopy were better than of direct laryngoscopy Also the increase in MAP in the direct laryngoscopy is more than that of Videolaryngoscopy.

Keywords: Laryngoscopy, Intubation, Videolaryngoscopy (glidoscopy).