

Effect of Cervical Collar on Oropharyngeal Sealing Pressure and Fiberoptic View of the Glottis with Ambu Aura Gain™ Laryngeal Airway: A Randomized Cross Over Trial

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Abstract

Statement of the problem: Ambu® AuraGain™ laryngeal airway is one of the newer supraglottic airway devices introduced in 2014. Cervical spine stabilization with hard cervical collar is a routine practice in patients with cervical spine instability, which makes insertion of supra-glottic airways and tracheal intubation difficult. This study was conducted to investigate whether the presence of a cervical collar affects the oropharyngeal sealing pressure (OSP) and fiberoptic view of the glottis in airways secured with the Ambu AuraGain LMA. **Methodology:** This was a randomised cross over study. Thirty five ASA 1-3 patients undergoing elective surgery under general anaesthesia were recruited. In each patient Ambu AuraGain was inserted twice in a crossover manner once with and once without a hard cervical collar in situ. During each insertion of LMA, the oropharyngeal sealing pressure, fiberoptic view of the glottis (assessed by the Brimacombe score), insertion parameters (number of attempts, ease of insertion, time taken to insert) ventilator data and complications were noted. **Findings:** The mean oropharyngeal sealing pressures in both the groups were similar with no significant difference [29.60 ± 3.77 cmH₂O without collar and 30.17 ± 3.12 cmH₂O with collar ($p=0.310$)]. The fiberoptic view of glottis was also similar in both groups. The insertion with collar was more difficult than without collar. The number of attempts for successful insertion was same in both the groups. The time taken for appropriate placement of LMA was significantly prolonged in patients with collar [without collar 21.34 ± 9.67 seconds and with collar 26.17 ± 11.71 ($p=0.025$)]. **Conclusion:** We conclude that the Ambu AuraGain LMA can be used in patients whose cervical spine is immobilised with a hard cervical collar.

Biography

Suman Lata Bhagat is an Indian politician and former Minister of Health and Medical Education in the Government of Jammu and Kashmir.[1] She is a leader of Indian National Congress and was elected in the Ranbir Singh Pura constituency for a seat in the Jammu and Kashmir Legislative Assembly.

Recent Publications

1. Fabbrocini, G., Marasca, C., Ammad, S., Brazzini, B., Izzo, R., Donnarumma, M. and Monfrecola, G. (2016). Assessment of the Combined Efficacy of Needling and the Use of Silicone Gel in the Treatment of C-Section and Other Surgical Hypertrophic Scars and Keloids. *Advances in Skin & Wound Care*, 29(9), pp.408-411.
2. Busch, K., Bender, R., Walezko, N., Aziz, H., Altintas, M. and Aust, M. (2016). Combination of medical needling and non-cultured autologous skin cell transplantation (ReNovaCell) for repigmentation of hypopigmented burn scars. *Burns*, 42(7), pp.1556-1566.

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