

## Is Extubation with Positive Pressure Safer than Extubation with Negative Pressure?

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### ABSTRACT

**Objective:** To compare the frequency of respiratory complications with two different methods of extubation i-e negative pressure extubation versus extubation with positive pressure.

**Study Design:** Quasi Experimental Study.

**Place and Duration:** This Study was conducted in CMH Peshawar, from 1<sup>st</sup> November 2022 till 30<sup>th</sup> October 2023.

**Methodology:** A total of 200 patients planned for any surgery involving general anesthesia and tracheal intubation were chosen for this study and were divided into two equal groups. Extubation was done when the patients were fully awake. In group N (Negative Pressure), endotracheal tube was removed in a single smooth motion while applying suction to the endotracheal tube. On the other hand, in group P (Positive pressure), extubation was done by applying positive pressure of 15-20 cmH<sub>2</sub>O. Patients were observed for post-extubation complications for 10 minutes after the extubation.

**Results:** In group N, only 6 (6%) had cough; whereas in group P, 12 (12%) patients had cough and this difference was statistically not significant (p-value=0.138). Breath holding was seen in 7 patients in both groups (p-value=1.0). Laryngospasm was seen in 7 patients in group N, and 3 patients in group P and the difference was not statistically significant (p-Value=0.194). Desaturation was seen more in group N than in group P but results were statistically insignificant (p-value=0.155). No patient required the re-intubation in either group.

**Conclusion:** Tracheal extubation at the end of general anesthesia with positive pressure is equally effective as compared to the extubation done with negative pressure.

**Keywords:** Airway complications, Extubation techniques, Laryngospasm, negative pressure extubation, Positive pressure extubation, tracheal extubation.

#### How to Cite This:

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