

Humidity During General Anesthesia

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Rationale : Maintenance of adequate airway humidity is necessary especially in artificial airway. The humidity of inspired gas from the circle absorber system may not be adequate for patients under general anesthesia with endotracheal intubation. **Design :** Descriptive study and prospective data collection. **Methods :** the humidity of inspired gas from the circle absorber system was measured by a Hygrodynamic electric hygrometer in 70 healthy patients having surgical procedures under general anesthesia with endotracheal intubation. **Results :** Initially the absolute humidity in each patients ranged from 5.9 to 14.3 mgH₂O/L. It reached the maximum level within 10 to 150 minutes ranging from 8.4 to 24.3 mgH₂O/L. These maximum values were lower than the American National Standard Institute (ANSI) recommendation. There was no respiratory complication noted in our study population. **Conclusion :** The humidity of the circle absorber system does not meet the ANSI recommendation and may be inadequate for patient under general anesthesia with endotracheal intubation. Nevertheless, we did not find any respiratory complication in our study population within 48 hours.

Key words : Humidity : absolute humidity, relative humidity. Circle absorber system.