



Can Mechanically Ventilated Patients Feel Secretions in Their Airway?

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Airway suctioning in ventilator-dependent patients can result in life-threatening complications. Patients are frequently asked if they want their airway suctioned; yet there is no evidence that patients can accurately sense whether or not they have secretions.

To study a patient's ability in detecting secretions, we asked 17 mechanically-ventilated patients the following questions: "Do you feel you have secretions or mucus in your airway or chest?" and "Do you want to be suctioned?".

Nine patients had a sensation of secretions and eight did not. All but one of the nine patients who felt they had secretions wanted to be suctioned; none of the eight patients who did not feel secretions wanted to be suctioned ($p=0.004$). The weight of the secretions suctioned from patients was greater in patients who sensed their secretions than patients who did not sense secretions (2.8 ± 3.3 vs. 0.06 ± 0.3 gm, $p=0.05$). Using one gm as a threshold for significant secretions, the sensitivity of patients sensing secretions was 83% and specificity was 70%.

The patients were also asked "Was suctioning very uncomfortable, uncomfortable, or not uncomfortable?" Seven answered "not uncomfortable", six answered "uncomfortable", and four answered "very uncomfortable". When patients were asked "How does your chest or breathing feel after suctioning?" seven answered "no change" and 10 answered "better." These answers were not related to the patients' feeling of secretions, wanting to be suctioned, or the amount of secretions.

In conclusion, ventilator-dependent patients can accurately sense secretion in their airway and they rarely experience severe discomfort from suctioning.