RML SPECIALTY HOSPITAL
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Summary of Psycho-social Aspects of Weaning Research

Anxiety Levels in Patients Weaned from Mechanical Ventilation

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To determine whether anxiety influences the outcome of patients being weaned from prolonged mechanical ventilation (> 21 days), we measured anxiety in 100 patients (aged 66.8 ± 13.5 years, 36% women) on arrival at a weaning facility. Sixty-one patients were successfully weaned (WS) and 39 patients failed weaning or died during the stay at the facility (WF). Within three days of admission to the facility, a trained psychologist categorized each patient's anxiety as none, mild, moderate, or severe. Eighteen patients (10 WS, 8 WF) were classified as having no anxiety, 58 patients (32 WS, 26 WF) as mild anxiety, 23 patients (20 WS, 3WF) as moderate anxiety, and 1 patient as severe anxiety.

In a second study, State-Trait Anxiety Inventory questionnaire was administered to 23 of the patients on arrival to the facility. This instrument consists of two scales, each with 20 items: state anxiety (assesses how a patient is feeling "right now") and trait anxiety (assesses how a patient feels in general, long-term). Scores can range from 20 (low anxiety) to 80 (high anxiety).

Questionnaires were administered before the first spontaneous breathing trial; the state questionnaire was also repeated 20 minutes later. Patients who were successfully weaned reported less state anxiety than did patients who remained ventilator dependent (40.4 ±10.2 vs. 51.7 ± 9.0, p=0.01); the scores did not change over the subsequent 20 minutes (42.4 ± 13.2 vs. 51.1 ± 8.7, respectively). The trait anxiety scores were similar in the two groups (35.4 ± 10.2 vs. 40.3 ± 6.3 p=0.24).

In conclusion, most patients undergoing prolonged weaning displayed varying levels of anxiety; a history of anxiety (anxiety trait) was not associated with weaning outcome, whereas the presence of anxiety at the time of spontaneous breathing trial (anxiety state) was associated with weaning failure.

Do Patients Weaned from Prolonged Mechanical Ventilation Show Early Signs of Post-Traumatic Stress Disorder?

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Our goal was to prospectively determine whether patients who are weaned from prolonged mechanical ventilation (45.1 ± 27.7 days), experience significant episodes of stress and early signs of post-traumatic stress disorder. Post-Traumatic Stress Syndrome (PTSS-10) questionnaires, a self-assessment questionnaire previously validated in patients surviving ARDS, were administered to 10 patients 7.1 ± 2.6 days after weaning from prolonged mechanical ventilation at a long-term acute care facility.

The questionnaire is divided into two parts: part A consists of a structured survey to determine whether significant stressors occurred during their weaning; part B determines whether a patient is currently experiencing any of 10 common stress symptoms and their severity. A trained psychologist also independently assesses the level of anxiety within three days of admission.

The patients were 68.5 ± 14.3 years old and had an average time to wean at our facility of 13.5 ± 14.9 days. Four of the 10 patients reported at least two of four stressors required for the development of post-traumatic stress disorder; no patient had a symptom score of 35, which is suggestive of the disorder. Symptom scores on the questionnaire were equivalent for patients judged to have anxiety on admission versus patients judged free of anxiety: 14.2 ± 3.9vs. 16.8 ± 5.4 p=0.44.

In conclusion, most patients weaned from prolonged mechanical ventilation at a long-term acute care facility did not experience sufficient stressors to develop post-traumatic stress disorder and none showed early symptoms of the disorder.