

Changing the Institutional Practice of Prolonged Mechanical Ventilation after Coronary Artery Bypass Graft Surgery to Early Extubation

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Abstract

Since 1997 some of our cardiac anaesthetists have, whenever possible, extubated the patients early after cardiac surgery to improve their level of comfort, to allow an early return of the cardiopulmonary physiological function, and to help reduce health care costs. After a few months of implementing this practice, an audit was carried out to evaluate the success of early extubation after coronary artery bypass graft (CABG) surgery.

Over a 6-month period starting from May 1997, the perioperative data of 110 consecutive patients with good or moderate left ventricular function scheduled for elective CABG were prospectively collected and analysed. The anaesthetic regime was according to the preference of the anaesthetists. Initially consent was obtained from the surgeons when the extubation criteria were fulfilled, but subsequently as the practice became more accepted by the surgeons, extubation was initiated by the anaesthetists.

Within 4 hours of admission into the intensive care unit (ICU), 50 (45.5%) of the 110 patients satisfied the early extubation criteria and were extubated. The extubation criteria are described in the article. For the remaining patients, the median duration of mechanical ventilation was 14.3 hours. The profiles of the two groups of patients and the possible reasons for not extubating early are discussed.

Forty-five per cent of the patients with moderate to good ventricular function were extubated safely within 4 hours of admission into the ICU after CABG surgery. With gradual acceptance of the practice and a change in mindset amongst all the care givers, more patients can benefit from this practice. This article highlights the challenges associated with changing institutional practices with respect to the postoperative care of cardiac patients.

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