Fast-track Cardiac Anesthesia in the Elderly

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Cardiac surgery in octogenarians is performed routinely owing to ageing population and improved life expectancy. Although octogenarians have a higher risk for postoperative complications (1-3) they will benefit from improved functional status and quality of life (4) after the operation. This is true for patients undergoing coronary artery bypass grafting (5,6) as well as valve operations (7,8).

Concerning costs, the conventional treatment of octogenarians will result in higher costs as compared to a younger population, owing to longer stay in the intensive care unit (ICU) and cumulative length of stay (LOS) in the hospital (9).

The aim of fast track anesthesia in cardiac surgery patients is to shorten ventilation time, length of stay in intensive care unit and total hospital length of stay (10) and thereby reducing the costs (11,12). The definition of fast track extend from immediate extubation in the operation room to extubation within 10 hours (13) after the end of the operation, whereas extubation in the operation room is often called “ultra fast track” (14). Shortening the ventilation time is one aspect, but only few fast track concepts could demonstrate an effective reduction of length of stay in the intensive care unit. Most of the studies were performed in patients undergoing coronary artery bypass grafting and in relatively young patients (15).

Kogan and colleagues have published their results of fast track in the elderly (16). The definition of fast track in this study was extubation within 10 hours, ICU stay of less than 24 hours and total length of stay in hospital of less than 6 postoperative days. They found successful fast track treatment in 54.5 % of the septuagenarians and 37.3 % in the octogenarians. The authors stated that not the age itself, but the type of surgery and comorbidities are important factors for failed fast track treatment.

At the heartcenter Leipzig the fast track concept is to avoid the stay in the intensive care unit completely. We have reported a success rate of 87 % in our six months results in a mixed population (17). This concept results not only in lower mortality as compared to the conventional treatment, but also results in marked reduction of costs (18). Since beginning of the “Leipzig Fast-track concept” 161 patients with an age of > 79 years were treated in the post anesthetic care unit. The readmission rate to the intermediate care unit was 21.7 % as compared to 14.5 % for the younger population in our previous mentioned study (17). The readmission rate to the intensive care unit was also higher for the octogenarians (6.8 % vs. 5.7%).

Advanced age should not be a contra-indication for fast track treatment, although it is associated with a higher failure rate as compared to younger patients. Careful selection of the patients who undergo fast track treatment is very important for successful outcome.

References


