

Malnourished after Cardiac Surgery: Are Healthcare Practitioners Aware?

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Background

The deleterious effects of peri-operative malnutrition on recovery after general surgery are established. Since the effects of peri-operative malnutrition on recovery after cardiac surgery are not known.

Aims & Objectives

To examine the effects of nutritional status and risk factors predictive of malnourishment – as an outcome of cardiac surgery.

Material & Methods

Aneurysms involving the ascending aorta and aortic root can be repaired with low operative risk with proper analysis. Operations such as composite valve-graft root replacement or valve-sparing root reconstruction carry expected mortality <5% with few peri-operative complications. The primary outcome was mortality; secondary outcomes included infection and nutritional risk index (NRI) scores.

Results:

One Hundred Thirty Six Cardiac surgery cases were

performed during the study period. Nutritional depletion developed in 65% of patients and was more likely in patients undergoing valve-graft root replacement (82%) or valve-sparing root reconstruction (59%) ($P = .0005$). Patients who developed malnutrition had similar mortality as patients who did not develop postoperative malnutrition (7.7% vs. 2.2%; $P = 0.68$); however, malnourished patients had higher rates of postoperative infection (19.2% vs. 6.7%; $P = .03$).

Conclusions

Patients undergoing major composite valve-graft root replacement or valve-sparing root reconstruction have high rates of postoperative malnutrition, with patients undergoing operations on the ascending aorta and aortic root having the highest rates of postoperative malnourishment and infection. Patients with chronic state undergoing cardiac surgery are associated with increased risk for postoperative malnourishment and may be a group to target for peri-operative risk factor modification and nutritional supplementation. A thorough and thoughtful review of all peri-operative data and analysis is essential to achieve a successful outcome.