

Use of transesophageal echocardiography in cardiac surgery

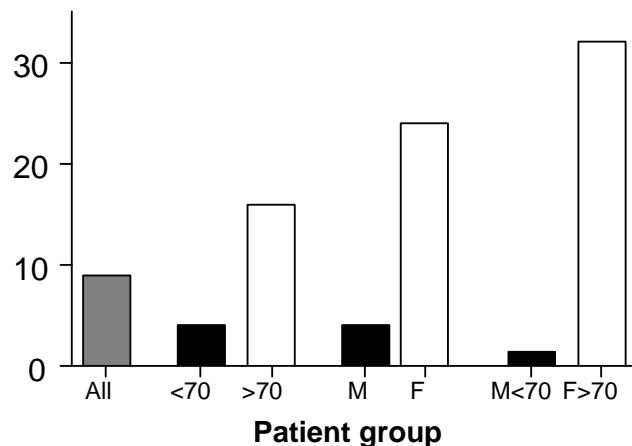
Over the past few years the Victorian Surgical Consultative Council (VSCC) has received reports of complications occurring as a result of the use of transoesophageal echocardiography in cardiac surgery.

It was decided to refer the issue to the Victorian Consultative Council on Anaesthetic Mortality and Morbidity (VCCAMM) and it has undertaken a detailed study on the matter, briefly summarised here. The work has been recently published in the Journal of Cardiothoracic and Vascular Anaesthesia (reference listed below).

Conclusion from VCCAMM:

A handful of international studies had defined the incidence of TOE-related complications as very low, of the order of 3-4 per 10,000 cases. Using the Australian Society of Cardiac and Thoracic Surgeons database between 2001 and 2007 financial years, the authors sought to define the local incidence and outcome from major oesophageal injury (tear or perforation) related to the intraoperative use of TOE, and assess any possible risk factors, such as age or sex.

Injuries / 10,000 patients



The above figure summarises the key findings. Overall, the incidence of TOE-related complications was higher, at 9 per 10,000, with a mortality rate of 2 per 10,000. Patients aged over 70 years had a relative risk of 3.7 compared to those under 70 (95% CI 1.2-11.7). Women had a relative risk of 6.5 compared to men (95% CI 2.0-21.1). Females over 70 had a relative risk of 22 compared to men under 70 (95% CI 2-182).

It was concluded that older women have a substantially greater risk for TOE-related injury.

Reference:

Piercy M, McNicol L, Dinh DT, Story DA, Smith JA. Major complications related to the use of transesophageal echocardiography in cardiac surgery *J Cardiothorac Vasc Anesth* 23:62-65, 2009

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