

The Victorian Surgical Consultative Council

Knee Replacement, Epidural Anaesthesia and Myocardial Infarction

KNEE REPLACEMENT, EPIDURAL ANAESTHESIA AND MYOCARDIAL INFARCTION

Two cases have been reported to the Victorian Surgical Consultative Council (VSCC) where patients having knee replacement under epidural anaesthesia have died about 24 hours post-operatively from myocardial infarction.

Comment:

The outcome for primary knee and hip replacement surgery is the same whether performed under regional or general anaesthesia and thus the risk of myocardial infarction is identical.

With major orthopaedic surgery the cardiac risk is said to be intermediate (less than 5%) Particular risk factors for this type of surgery include age, hypertension, ischaemic or valvular heart disease, peripheral vascular disease, diabetes and other co-morbidities. Pre-operative evaluation must focus on the patient's cardiovascular stability and the ventricular response to stress and guidelines for special tests can be determined by an algorithm published by the American College of Cardiology/American Heart Association Task Force.

Irrespective of the anaesthetic technique employed the important principles in peri-operative management of patients undergoing major joint replacement are avoidance of a fall in systolic blood pressure of greater than 20% of the patient's usual blood pressure, maintenance of normovolaemia and maintenance of oxygen saturation in the early post-operative period.

The Council has endorsed this statement regarding myocardial infarction after joint replacement surgery. Currently there is no evidence to suggest that epidural anaesthesia increases the risk of myocardial infarction.

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