

Editorial I

BETA BLOCKERS HOW SAFE ARE THEY?

Ischaemic heart disease is one of the commonest medical conditions encountered by the anaesthetist in the preoperative visit. Even though Sri Lanka is a developing country the incidence of ischaemic heart disease is quite high, supposedly due to dietary habits (fast food) and high degree of stress levels in the young employed.

The perioperative ischaemia study evaluation trial (POISE) is therefore of interest to the anaesthetic community in this country as this paved the way to new guidelines in the management of the cardiac patient for non cardiac surgery. The POISE study was a large multicentre trial conducted in over 8000 patients and evaluated the ability of metoprolol to prevent heart attacks and deaths perioperatively. The primary purpose being prevention of cardiac insults. This was a randomized controlled double blind study which was started in October 2002 and terminated in August 2007. The study showed that perioperative beta blockade decreased cardiac risks but increased all cause mortality (Number needed to harm 130) and the risk of disabling strokes (number needed to harm 190).

The results of this study led to a lot of debate as to the use of beta blockers perioperatively and this resulted in two new sets of guidelines being put forward for the use of beta blockers in the perioperative period. The first guideline was put forward by the European society of cardiology (ESC) in August 2009. The second guideline publicized was the American College of Cardiology Foundation and American heart association guidelines (ACCF/AHA) in November 2009.

Both guidelines stress the importance of proper assessment of the patient and the risks of surgery so as to be able to identify patients who will need beta blockade. The recommendations in both

guidelines say that patients on long term beta blockade should continue with it. Both guidelines also stresses the importance of titrating the dose of beta blocker to heart rate and blood pressure. They recommend a heart rate of more than 60 – 70 beats per minute in the European guidelines while the American guidelines put the heart rate at 60 - 80 beats per minute. In addition the European guidelines specify the blood pressure to be above 100 mmHg while the American guidelines say that there should be no hypotension. The European society of cardiology recommend beta blockade to ischaemic heart disease patients and patients at risk of myocardial infarctions. The ACCF/AHA recommend that beta blockade should be started in patients with coronary artery disease or more than one cardiac risk factor. The ESC does not specify type of surgery stating only “high risk surgery” where as the ACCF/AHA guidelines specify type of surgery as vascular surgery.

These guidelines will definitely be useful when assessing and managing the high risk cardiac patient scheduled for intermediate and high risk surgery.

References

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