

## **Routine use of Epi-Aortic Ultrasound - Tthe Cardiac Surgeon's Answer to the SYNTAX Trial**

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### *Background*

Intra-operative Epi-Aortic Ultrasound (EAUS) has proved the most sensitive modality, in finding ascending aorta atherosclerosis. Studies have shown a reduction in post-operative neurological complications and most authors recommend routine EAUS in every cardiac operation. The purpose of this study was to check early clinical results after implementation of a routine Intra-operative EAUS in every cardiac surgery done in our institute.

### *Methods.*

EAUS was performed routinely and documented as part of the operative computer report. The report contains: patient data, operative plan, palpation findings, EAUS finding (atheroma was graded according to the standard classification), change of operative plan according to the EAUS , and procedure time. Review of the first 65 consecutive patients is presented.

### *Results*

There was no postoperative stroke. Findings on palpation were found in 10 patients, seven of whom were planned for CABG only and three were planned for a combined procedure. All findings were found on the EAUS; however, the view from the EAUS (protruding atheromas) in six of these patients led to a change in the operative plan; from CABG to off-pump coronary bypass in two, and there was a change in the cross clamp location and the cannulation and proximal anastomosis sites in the remaining four patients. Another five patients who had no findings on palpation had a positive finding on EAUS ; nevertheless, there was no resulting change in the operative plan. In total, 15 (23%) patients had positive EAUS findings, in six (9%) of whom there was a change in the operative plan. Median and mean procedure times were 2 and 2.7 minutes, respectively.

### *Conclusions*

Routine use of EAUS has proved itself as the definitive approach for detecting and defining the extent of aortic atheromatic disease. Palpation alone is an important maneuver but it is less sensitive. Moreover, palpation may be misleading and, therefore, EAUS is a better tool for intra-operative decision