

## **Intercollegiate Specialty Examination in Cardiothoracic Surgery**

**Theme:** Porcelain aorta in a patient requiring coronary surgery.

**Scenario:** A 54 year old man has triple vessel coronary disease including a left main stem lesion of 60% with extensive calcification of the ascending aorta on routine coronary angiography.

**Introductory Question: (e.g. integration of information presented/application of basic principles to the situation described in the scenario/differential diagnosis)**

What is the potential clinical significance of extensive calcification of the aortic root in this patient?

**Key Points for Discussion:**

Likely to be associated with severe disease of ascending aorta. Main concerns would relate to embolic risk and possible perioperative neurological injury. Further assessment preoperatively by CT would be appropriate.

Discuss patient at MDT.

**Question 2: (e.g. management, relevant applied pathophysiology, anatomy)**

Describe how would you undertake CABG on this patient.

**Key Points for Discussion:**

Pre-operative assessment eg bilateral arm blood pressure, CT angio of aorta subclavian

On pump – epiaortic ultrasound, modified cannulation, single cross clamp/avoidance of side clamping, devices to perform proximal anastomoses.

Off pump - pedicled grafts, no-touch aortic technique.

**Question 3: (complications of management)**

What are the alternative strategies and techniques?

**Key Points for Discussion:**

Hybrid approach PCI with surgery; if PCI alone then consider how consent would change.

MIDCAB, LAST; top end on brachiocephalic artery.

Consider replacement of ascending aorta. Preferred strategy would be avoidance of aortic clamping by the use of DHCA.

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End of Item D18367

## **Intercollegiate Specialty Examination in Cardiothoracic Surgery**

**Theme:** Chest deformities

**Scenario:** 19 year old boy attended your clinic with his parents, troubled with a chest deformity

**Introductory question: (e.g. integration of information presented/application of basic principles to the situation described in the scenario/differential diagnosis)**

What is a pectus excavatum deformity?

**Key Points for Discussion:**

Description of deformity, mechanism, severity. Haller index. Incidence, Symptoms, Associated Congenital anomalies.

**Question 2: (e.g. management, relevant applied pathophysiology, anatomy)**

What options of treatment are there?

What determines your choice of surgical treatment?

**Key Points for Discussion:**

Observation. Nuss or Ravitch. Physio. Weight training.  
Age; Flexibility of chest wall; symmetry, rib flaring.

**Question 3: (complications of management)**

What are the complications of this procedure?

**Key Points for Discussion:**

Bar migration; cardiac perforation; infection; pain;

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No exhibits

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