Maternal outcomes in women with aortopathy: experience in a tertiary joint cardiac obstetric centre

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Background

Pregnancy is associated with increased risk of cardiovascular complications for women with aortopathy

- 10% risk of serious maternal complications\(^1\)

Confidential Enquiry 2006-8: 7 deaths due to aortic dissection\(^2\)

UKOSS 2009-11: 12 confirmed aortic dissections, 4 died\(^3\)

Approximately 50% dissections occur in women with risk factors\(^4\)

Aim

To describe the maternal outcomes in women with aortopathy in our unit
Study Design

Retrospective cohort study
Discussed with R&D department

**Inclusion criteria:**
- Age 16-45
- Aortopathy

**Exclusion criteria:**
- Bicuspid aortic valve
- Structural congenital cardiac disease
- Coarctation of the aorta

Review of paper and electronic patient records

**Data collected:** Medical management, mode of delivery, anaesthetic for delivery, obstetric and cardiovascular complications (up to 1 year post partum)
Findings

23 patients

One excluded as family history only

28 pregnancies

- 2 women had previous aortic surgery
- 3 women had a pre-pregnancy aortic diameter > 40mm
- 2 pregnancies terminated due to occurrence of genetic abnormality in fetus

Complications

- Serious cardiovascular complication in 3 patients
- 2 of these patients had an aortic diameter > 40 mm
- No women died
Complications

Case 1
Known Marfan syndrome, stable dilated aortic root (42mm)
Peri-partum Type A dissection
Emergency aortic root replacement

Case 2
Presumed low risk pregnancy
Severe chest pain at 38/40: Type A Aortic dissection
Delivery under CSE, followed by Aortic root replacement
Diagnosed with Marfan syndrome post operatively

Case 3
Undefined aortopathy
Rapidly dilating aorta (43mm – 58mm) during pregnancy
Aortic root replacement at 22/40
Necrotising granulomatous aortitis
Category 3 CS at 34/40
Findings

Mode of delivery

Anaesthetic for delivery

NVD: 3 epidurals

Instrumental: 1 spinal, 1 epidural

Elective CS: 2 CSE, 2 spinal

Emergency CS: 1 Epidural, 1 CSE, 1 Spinal
Conclusions

- Complication rates in our unit are similar to those quoted.
- MRI screening of aortic diameter can help to stratify risk.
- The diagnosis of aortic dissection should be considered in pregnant women presenting with chest pain and investigated urgently.
- Pregnant women with aortopathy should be managed in discussion with a tertiary centre.

Limitations

Descriptive data only.
Reliant on data from medical records.
Questions

References


