

Pregnancy in patients with Congenital heart disease: A rising obstetric challenge

Objective:

The recent advances in maternity cardiology has made it possible for large number of adults patients with congenital cardiac lesions to successfully go through their pregnancy. These pregnancies pose significant maternal and neonatal morbidity and mortality. In this report we aim to describe a case of adult congenital heart disease who became pregnant and went on to have a successful and safe childbirth in our tertiary maternity unit.

Case report:

Ms A was a 32 years old Gravida 5 para 1, who was referred to our maternity cardiology unit at 19th week of gestation. Her past medical history was significant for i) Bicuspid aortic valve with severe Aortic stenosis ii) Coarctation of aorta iii) Infective endocarditis iv) Cerebral vascular accident complicated by Left hemiplegia in 1997 v) resection of sub-valvular stenosis in 1997 vi) Ventricular septal defect. She had an uncomplicated caesarean at 36 weeks and made an uneventful recovery. She had an Echo at 15 weeks which reported severe aortic stenosis, ventricular septal defect, residual coarctation of aorta and grade 2/4 diastolic dysfunction. She was stratified as very high-risk pregnancy, WHO Class III with mean gradient of 69 mm Hg, NYHA I. The patient was counselled in detail regarding her cardiac risks including heart failure, atrial arrhythmias, mortality and fetal risks. The patient was advised to restricted activities. Also, a documented plan was made regarding her follow up in the cardiac maternity clinic. Plan was made to offer hospital admission at 30 weeks of pregnancy and for elective caesarean at 34 weeks. She was also referred to fetal medicine clinic for details anatomy scan. On her next visit to the cardiac maternity clinic at 24 weeks, her clinical status deteriorated to NYHA II. The patient was initiated on Furosemide. Also, a high-risk MDT was arranged to formulate the plan for remainder of pregnancy. A repeat Echo at 31 weeks demonstrated significant increase in peak velocity and gradient across aortic valve. Therefore the multidisciplinary team decided to expedite her delivery. The patient was hospitalized and was started on beta blockers and antenatal corticosteroids. She was transferred to Critical Care unit the following day and had a repeat caesarean section and bilateral tubal sterilization. Her intra op and post op course was unremarkable and was discharged home stable on the fourth post op day. She was given follow up in Maternity cardiology clinic and cardiothoracic clinic.

Discussion and Conclusion:

This case report highlights the importance of risk stratification multidisciplinary team input, provision of patient centered care, cardiac monitoring and planned delivery.