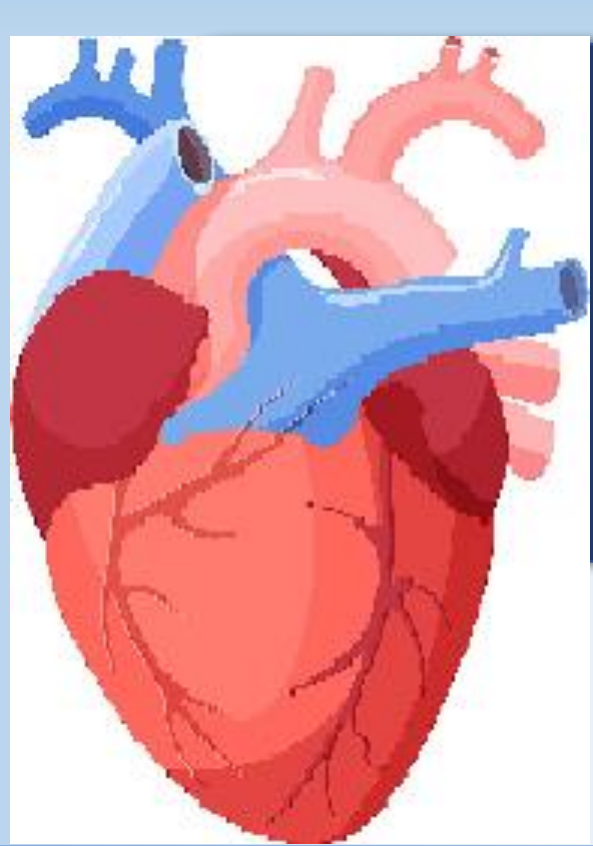




Study of maternal and fetal outcomes in patients of valvular heart disease

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Introduction

80% of patients with heart disease during pregnancy is of valvular pathology. Many women with severe valvular heart disease are reaching child-bearing age due to advancement in treatment options. Such patients are at increased risk of morbidity and mortality in resource poor countries.

Aims and objectives

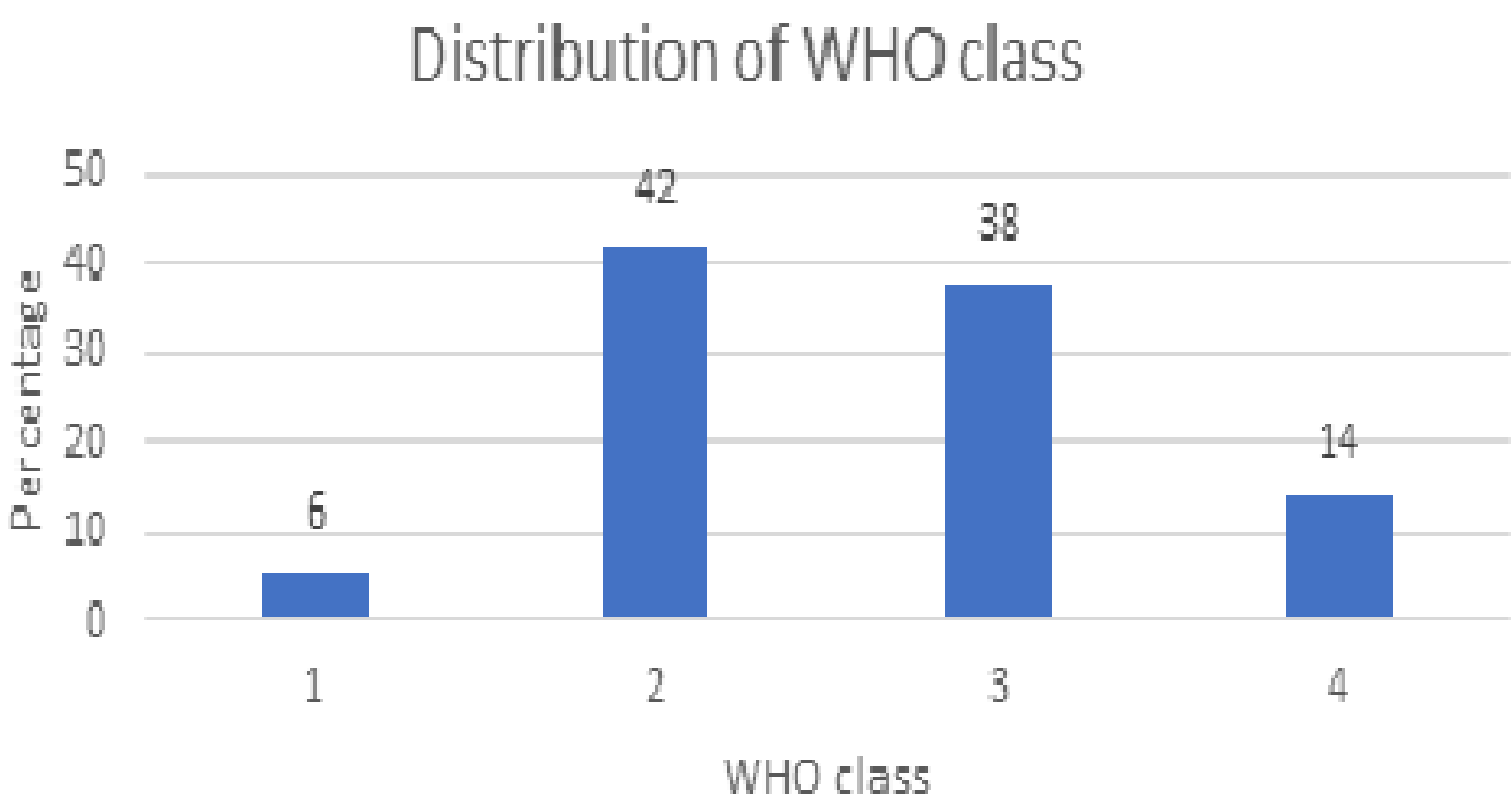
To find incidence and study fetomaternal outcomes in patients of valvular heart disease, repaired and replaced valves.

Materials and methods

Prospective observational study in a tertiary care centre with 50 patients of valvular heart disease

Mode of delivery, incidence of cardiac and obstetric adverse events noted. Serial 2-D Echo reports, anticoagulation agent & its monitoring parameters followed up. Neonatal outcomes measured.

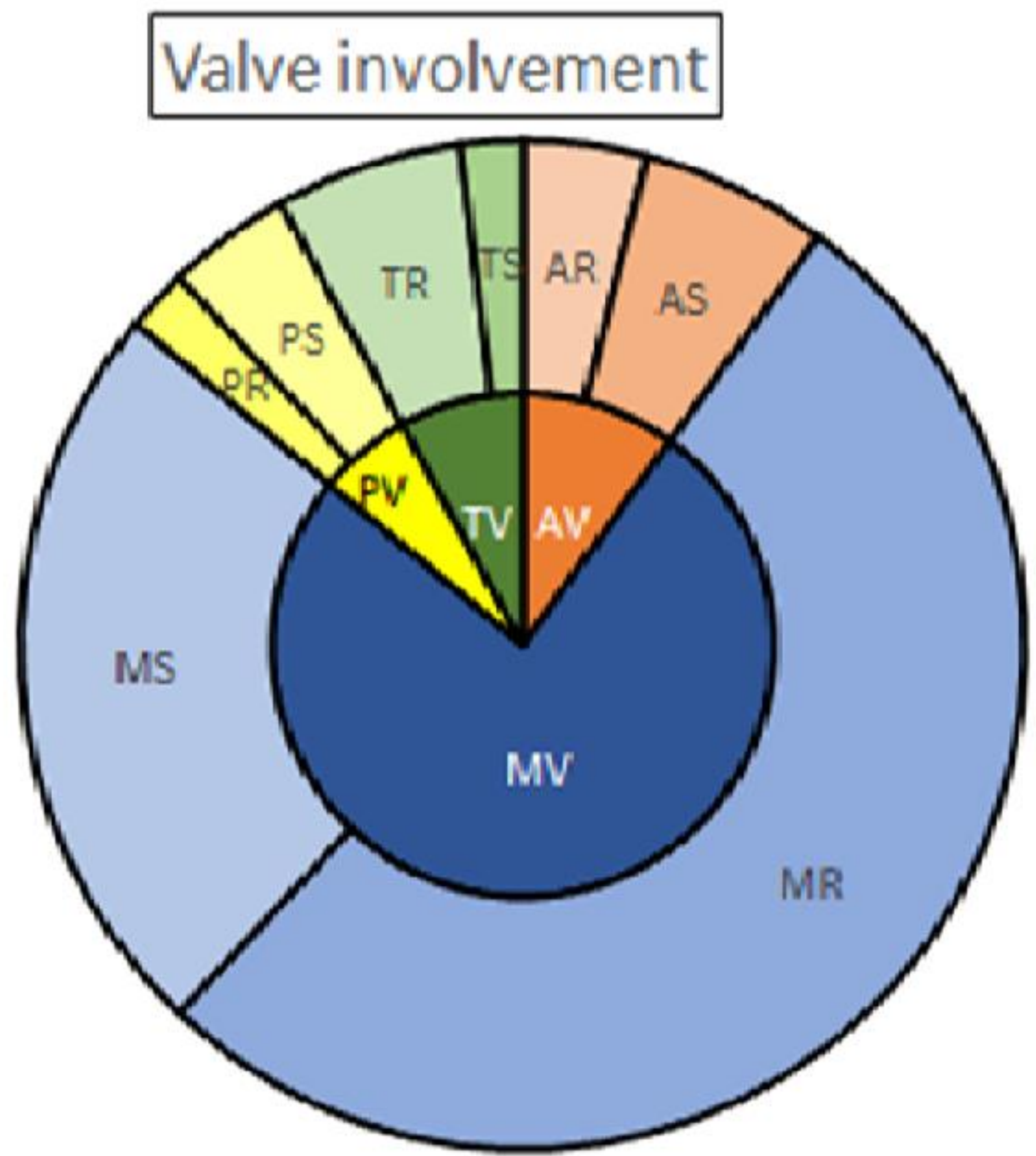
All the valvular lesions divided according to their severity into low risk (WHO category 1 and 2) and high risk (WHO category 3 and 4).



Results

- Incidence**- 86% patients were <30 years of age. The commonest aetiology was rheumatic(56%) and 8% were congenital. Mitral regurgitation was the single most common individual valve pathology. 42% patients were asymptomatic. 13 patients underwent pre-pregnancy valve repair procedures, 38% and 58% patients underwent valvotomy and valve replacement, respectively.
- Delivery**- 72% women delivered before 37 weeks of gestation. 54% of all the patients delivered by cesarean section. Higher rates of Cesarean section were observed in higher WHO classes. 43% of vaginally delivered patients underwent instrumental delivery.
- Neonatal outcomes**-90% babies were born alive and 52% of them required NICU admission for respiratory distress, prematurity, hyperbilirubinemia.

- Complications**- The commonest obstetric complication was anemia followed by pre-eclampsia. Post-partum haemorrhage was associated more commonly in patients using warfarin (50%) than heparin. Choked mitral prosthetic valve and cardiogenic shock caused 2 maternal mortalities.
- Significant association with occurrence of complications like preterm labor, ICU admissions, congestive cardiac failure, pulmonary edema, peripartum cardiomyopathy and presence of left atrium clot was noted in patients with high risk WHO classes of valvular heart disease ($p<0.05$).



Limitation- The reason for no statistically significant association of high risk WHO classes with parameters like maternal mortality, atrial fibrillation, PAH, LV dysfunction, pulmonary embolism was due to smaller sample size.

Conclusion

- Rheumatic mitral valve pathology commonest valvular heart disease in pregnancy.
- Hemodynamic changes occurring in pregnancy precipitate cardiac and obstetric complications.
- The overall morbidity and mortality has increased.
- A multidisciplinary team approach during antepartum, intrapartum and immediate postpartum is necessary to improve the fetomaternal outcomes.

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