

HEART DISEASES IN PREGNANCY

Hypertension:-

In pregnancy cardiac output \uparrow by 40%, most of \uparrow due to \uparrow in stroke vol. HR \uparrow by ~ 10 beats/min by 3rd trimester.
In 2nd trimester \rightarrow systemic vascular resistance \downarrow
 \downarrow in BP.

during pregnancy, BP of 140/90 mmHg is considered to be abn^e elevated & is associated wth \uparrow in fetal morbidity & mortality.

In all pregnant women, BP shd be measured in sitting, becoz for many the recumbent posⁿ is associated wth a BP lower than that recorded in sitting posⁿ.

HTN during pregnancy is usually caused by pre-eclampsia, chronic HTN, gestational HTN or renal dis^o.

Pre-eclampsia:-

Approx $\approx 7\%$ of all pregnant women develop pre-eclampsia, BP $> 140/90$ & proteinuria (> 300 mg/24 h) after 20 wks gestⁿ.

\downarrow
results in vasospasm & endothelial injury in multiple organs.

Pre-eclampsia is asso. wth abnormalities of cerebral autoregulation \rightarrow \uparrow risk of stroke at near normal BP.

High risk for pre-eclampsia - multiple gestation
history of renal dis. / chronic HTN, extremes of age
(> 55 yrs or < 15) obesity & multiple gestation

- Severe pre-eclampsia is new onset of HTN + at least
proteinuria + CNS dysfn (headache, blurred vision, pro-
prio, seizures) marked elevⁿ of BP (> 160/110),
severe proteinuria (> 5 gms/24 h) oliguria/renal failure,
pulm. oedema, thrombocytopenia (< 100,000/L).

- HELLP syndrome (hemolytic, elevated liver enzymes,
low platelet) is a special subgroup of severe
pre-eclampsia & major cause of morbidity &
mortality.

TE. pre-eclampsia resolves even few wks after
delivery.

mild preeclampsia - bed rest, close monitoring of BP &
renal fn, fetal surveillance.

severe pre-eclampsia - aggressive t/b of BP

- IV labetalol.
- Ca²⁺ channel blockers
(elevated BP shd be reduced slowly to avoid hypotension & ↓
in bld flow to fetus).
- ACE inhibitors avoided.
- Magnesium sulphate for bit of
eclamptic seizures.

Essential HTN

5. Pregnancy complicated by chronic essential HTN is associated with IUGR & ↑ perinatal mortality.

Pregnant women with chronic HTN are at ↑ risk for superimposed pre-eclampsia & abruption placentae.

HT: - Labetalol, α -Methyldopa

④ Gestational HTN: development of elevated BP during pregnancy or in first 24 h post partum in the absence of pre-existing chronic HTN & other signs of pre-eclampsia.

Uncomplicated gestational HTN that does not progress to pre-eclampsia has not been associated with adverse outcome / prognosis.

⑤ Pre-existing Mitral Stenosis:

- most likely to cause death during pregnancy.
- The pregnancy induced ↑ in bld. vol., CO & tachycardia can ↑ transmittal pressure gradient & cause pulm. oedema in women with MS. (may cause pulm. HTN in long standing MS).
- ↑ risk for development of atrial fibrillation & tachyarrhythmias.

- medical mxt: - digoxin, β blockers
- Balloon valvulotomy can be carried out during pregnancy.

pregnancy well tolerated during pregnancy.
pregnancy induced \uparrow in systemic vascular resistance less
of cardiac failure.

most severe cases of aortic stenosis, limitation of
with a balloon valvuloplasty may be indicated.
congenital heart disease.

CHD in mother has risk of CHD in newborn.
ASD / VSD is usually well tolerated during pregnancy
absence of pulm. HTN.
use of air filters during labour & delivery in
E to intracardiac shunts is generally
recommended.

Supraventricular tachycardia:- is a common cardiac
complication of pregnancy. t/t:- Ca^{2+} channel blockers.

Peripartum cardiomyopathy:- is an uncommon
condition of pregnancy - asso. c myocarditis, etiology
unknown.

many pts. recover completely, some left \uparrow
progressive dilated cardiomyopathy.

pulm. HTN:- primary pulm. HTN is a contraindication
of pregnancy. Termination of pregnancy advised.

if pregnancy continued - vaginal delivery is less
hazardous than C section.