Hypertension in Pregnancy

Definition

Chronic HTN: SBP greater equal to 140 or DBP greater equal to 90 prior to 20 weeks or persisting longer than 12w post partum

Gestational HTN: SBP greater equal to 140 or DBP greater equal to 90 after 20 weeks with or without proteinuria

Pre-eclampsia: New onset HTN (SBP >140 or DBP >90 x2 greater than 4hrs apart) with proteinuria more than 20 weeks. Proteinuria defined as >300mg/24hr (or 1+ urine dip or urine protein:creatinine ration of >0.3). If severe features are present, proteinuria is **NOT** needed for the diagnosis.

Severe features: SBP >160 or DBP >110; thrombocytopenia <100,000; elevated liver enzyme test more than 2x upper limit of normal, severe RUQ pain, renal insufficiency (cr >1.1 or doubling of baseline value); pulmonary edema; new onset cerebral/visual sympmtoms

Eclampsia: Pre-eclampsia with seizures

Diagnostic work up

CBC. CMP (evaluate liver and renal function), assessment of proteinuria (by urine spot prot to creatinine ratio, UA, or 24h urine collection)

Treatment and Medication

Acute HTN

Labetalol: 20mg IV, rpt at 10 min intervals, double dose with max dose of 80mg at 1 given time; total max dose of 300mg

Hydralazine: 5-10mg IV over 1-2 min, rpt a 20 mins interval. Max dose of 30mg

Nifedipine: 10mg PO, rpt at 20 min interval. If next BP severe, can give 20mg PO

Nitroprusside: 0.20-4mcg.kg.min IV drip, titrate to effect. Only in critical illness

Nicardipine: 2.5mg/h IV titrating, do not exceed 15mg/h

DO NOT USE: ACEI or ARB

Oral treatment

Labetalol: 100-800mg PO BID-TID (Max dose 2400mg/24hr)

Methyldopa: 250 mg PO BID (Max dose 3g/24hr)

Nifedipine XR: 30-90 mg PO daily (Max dose 120mg/24h)

Pre-Eclampsia with severe features or chronic HTN with superimposed pre-Eclampsia with severe features

Magnesium sulfate for seizure prevention: Given during stabilization prior to expectant management, during delivery, and 24h postpartum. Bolus 4-6g IV with maintenance of 1-2g/h for seizure prevention, titrate and consider no bolus if pt has renal failure. Monitor closely for pulm edema as MgSo4 is a smooth muscle relaxer

Timing for delivery:

Chronic HTN: No earlier than 38w if well controlled

Gestation HTN: 37weeks

Pre-Eclampsia

- Without severe feature: 37 weeks or >34 weeks if IUGR
- With severe feature: at 34 week if severe HTN is only feature. Otherwise deliver after 48hr of steroid if other severe feature present

Chronic HTN with superimposed preeclampsia: at 37 week if no severe features. Otherwise same as preeclampsia with severe feature

Pocket Obstetric and Gynecology by K Joseph Hurt, 2nd edition

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