Acute Hypertensive Urgency in the Peripartum Period

The purpose of acute parenteral treatment of severe hypertension is to prevent a stroke. There is no evidence that antihypertensive treatment reduces the incidence of fetal growth restriction, abruption, pre-eclampsia or improves fetal outcomes. Anti-hypertensive therapy is indicated when maternal blood pressure is >110 mm Hg diastolic or >160 mm Hg systolic.

- Goal of therapy is to decrease blood pressure by 20-30% quickly and then decrease blood pressure slowly to a target level of: systolic blood pressure [SBP] 140-160s and diastolic blood pressure [DBP] 80-90s.
- Reducing blood pressure too quickly to a lower level or below target level can significantly reduce intrauterine perfusion and negatively impact the fetus.

DRUGS OF CHOICE—1st Line

<table>
<thead>
<tr>
<th>Drug</th>
<th>Mechanism of Action</th>
<th>Dose</th>
<th>Onset of Action</th>
<th>Duration of Action</th>
<th>Max Dose</th>
<th>Contraindications</th>
<th>Side Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Labetalol</td>
<td>α1 and nonselective β blocker; Decreases SVR and HR</td>
<td>20mg IV with repeated doses Q 20 min at increasing intervals: 20-20-40-40-60-80; Push over 20 min</td>
<td>5 min; peak effect 10-20 min</td>
<td>6 hours</td>
<td>300mg IV/24hrs</td>
<td>Asthma Active cocaine use CHF Bradycardia</td>
<td>Dizziness Nausea Headaches Fatigue</td>
</tr>
<tr>
<td>#2 Hydralazine</td>
<td>Peripheral arteriolar vasodilator</td>
<td>5-10 mg IV Q15-20 min to a max of 30mg Can also start with 10mg IM</td>
<td>10-20 min</td>
<td>6-8 hours</td>
<td>30-40mg IV/24hrs</td>
<td>None</td>
<td>Reflex tachycardia Hypotension Headaches Palpitations Flushing Anxiety Tremors N/V Epigastric pain Fluid retention Fetal heart rate changes</td>
</tr>
<tr>
<td>#3 Procardia XL</td>
<td>Calcium Channel Blocker</td>
<td>30mg po</td>
<td>60-70 min</td>
<td>24hrs</td>
<td>120-180 mg/24hrs</td>
<td>None</td>
<td>Tachycardia Palpitations Headaches Facial flushing Ankle Edema ?Neuromuscular blockade with Mag</td>
</tr>
</tbody>
</table>

SECOND LINE AGENTS—For ICU use

#1 Nicardipine ➔ Start at 5 mg/hour and increase by 2.5 mg/hour every 5 minutes for rapid titration up to a maximum of 15 mg/hour; consider reduction to 3 mg/hour after response is achieved. Crosses the placenta, may affect fetal heart rate.

#2 Sodium Nitroprusside ➔ Use in rare cases of hypertension not responding to drugs already listed, clinical findings of hypertensive encephalopathy, or both. Start at a rate of 0.25 mcg/(kg · min) to a maximum dose of 5 mcg/(kg · min) Fetal cyanide poisoning may occur if used for >4 h.

References: