**INTRAHEPATIC CHOLESTASIS OF PREGNANCY**

**WHEN:** 2nd & 3rd trimester of pregnancy  
**INCIDENCE:** 0.3% to 0.5% [most estimates]

**DIFFERENTIAL DIAGNOSIS OF PRURITUS IN PREGNANCY**

**Pruritus affects 23% of pregnancies**

**MOST COMMON:** no pathologic cause

**PATHOLOGIC CAUSES:**
- Atopic eruption of pregnancy (AEP)
- Polymorphous eruption of pregnancy (PEP)
- Pemphigoid gestationis (PG)
- Intrahepatic cholestasis of pregnancy (ICP)

**ASSOCIATED FINDINGS**
- Eczematous rash on face, antecubital, popliteal fossa, trunk
- Pruritic urticarial papules & plaques on abdomen & thighs
- Vesicles & bullae

**Box 1**
Conditions associated with pruritus without rash
- Chronic renal failure
- Hypo-or hyperthyroidism
- Liver disease
- Malaria
- Paroxysmal hemicramps
- HIV
- Hodgkin disease
- Leukemia
- Non-Hodgkin lymphoma
- Polycythemia rubra vera
- TTP/HUS (paraneoplastic)
- Drugs [hydrochlorothiazide, opioids, among others]
- Multiple sclerosis
- Psychiatric disease [anxiety, depression, obsessive compulsive disorders]

**Box 2**
Other causes of elevated bile acids
- Primary biliary cholangitis
- Obstructive bile duct lesion
- Primary sclerosing cholangitis (associated with inflammatory bowel disease)
- Drug-induced cholestasis [trimethoprim-sulfamethoxazole, phenothiazines, ampicillin]
- Liver tumor
- Bacterial, fungal, and viral infections [eg, EBV, CMV, hepatitis]
- Hepatic amebiasis
- Lymphomas and solid organ malignancies
- Hepatic sarcoidosis
- Autoimmune hepatitis
- Idiopathic adult ductal/pancreatitis
- Total parenteral nutrition
- Viral diseases
- Familial intrahepatic cholestasis
- Carcinoma
- Sickle cell intrahepatic cholestasis
- Hepatic congestion from heart failure
- CLo in disease

**DIAGNOSIS**

Pruritus + total serum bile acids > 10 µmol/L

**WHO IS AT RISK?**
- Women with preexisting hepatobiliary disease
- Women w/ history of ICP
- Women w/ multiple gestations + AMA

**TREATMENT**

UDCA (ursodeoxycholic acid) 

**URSOdeoxycholic acid (UDCA) ± ICP in 1st line for ± of maternal sxs**
- Data on whether UDCA improves perinatal outcomes are less conclusive
- Dose: 10-15 mg/kg/day [divided into 2 or 3 daily doses], max 21 mg/kg/day
- ↓ pruritis in 1-2 weeks, ↓ labs in 3-4 weeks

**Assess:**
- Onset: TIMING
- Pruritus: medic & allergies
- Rise: factors for hepatitis
- Autoimmune & Travel hx

**Red Flag for Alt CAUSE**
- Excessive fatigue
- Insomnia
- Malaise
- Abdominal pain
- Cleaned bile acids, before the second trimester

**Itching + Normal bile acids?**
- Itching can persist + bile acids by several weeks
- If same persist - repeat testing

**COMPLICATIONS**

- ~1.2% of stillbirth or term is attributable to ICP
- Higher stillbirth rate
- Pathophysiology unknown; but hypothesized to be 1:2 fetal arrhythmia or placental vasospasm
- Data suggest risk of stillbirth is associated w/ TBA levels

- Higher preterm birth, asphyxia, respiratory distress syndrome, meconium-stained fluid
- Prevalence of spontaneous preterm birth + w/ TBA levels

- Higher risk for preeclampsia

**Delivery Timing**

**TBA > 100 µmol/L:**
- Offer at 36 0/7 weeks of gestation
- Ursodeoxycholic acid (UDCA) ± ICP in 1st line for ± of maternal sxs
- If same persist after delivery, repeat chemical testing should be repeated: UDCA + liver specialist

**TBA > 10 µmol/L, but < 100 µmol/L:**
- Recommend delivery at 36 0/7 - 39 0/7 weeks of gestation
- Consider maternal corticosteroids if delivering before 37 weeks

*Consider antenatal corticosteroids if delivering before 37 weeks*