Society for Maternal-Fetal Medicine

Consult Series #53

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) [MOST COMMON PRURITIC DIO]
- polymorphic eruption of pregnancy (PEP) [MOST COMMON DERMATOSIS]
- pemphigoid gestationis (PG) [RARE]
- intrahepatic cholestasis of pregnancy (ICP)

ASSOCIATED FINDINGS

- eczematous rash on face, antecubital/popliteal fossa, trunk
- pruritic urticarial papules & plaques on abdomen & thighs
- vesicles & bullae
- generalized itching + palms & soles, worse at night, no rash

BOX 1
Conditions associated with pruritus without rash

Chronic renal failure
Hypo- or hyperthyroidism
Liver disease
Malabsorption
Parasitosis or helminthosis
HIV
Hodgkin disease
Leukemia
Non-Hodgkin lymphoma
Polycythemia rubra vera
Tumors (paraneoplastic)
Drugs (hydrochlorothiazide, opioids, among others)
Multiple sclerosis
Psychiatric disease (anxiety, depression, obsessive compulsive disorder).

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ASSESS:

- Onset / Timing
- Severity
- PMHx
- Meds & Allergies
- Pets
- Hx of IVDU
- Risk factors for hepatitis
- Travel hx

RED FLAG FOR ALT CAUSE

- excessive fatigue
- insomnia
- malaise
- abdominal pain
- elevated bile acids before the second trimester

Itching + Normal bile acids?

- itching can precede ↑ bile acids by several weeks
- ∴ if sxm persist → repeat testing

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, Ebstein-Barr virus and cytomegalovirus)
Hepatic amyloidosis
Lymphoma and solid organ malignancies
Hepatic sarcoidosis
Autoimmune hepatitis
Idiopathic adulthood ductopenia
Total parental nutrition
Viral diseases
Familial intrahepatic cholestasis
Cirrhosis
Sickle cell intrahepatic cholestasis
Hepatic congestion from heart failure
Crohn disease

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DIAGNOSIS

Pruritis + ↑ total serum bile acids − diseases associated w similar findings [some clinicians make dx on clinical sxm alone]

total serum bile acids > 10 μmol/L

- *transaminitis can be seen, but is not necessary
- *fasting value NOT necessary

WHO IS AT RISK?

- women w preexisting hepatobiliary disease
- women w history of ICP
- has been associated w multiple gestations & AMA

MONITORING

Follow up laboratory testing may help guide delivery timing BUT serial testing (eg, weekly) **IS NOT RECOMMENDED**

* if sxms persist 4-6 weeks after delivery, biochemical testing should be repeated. if ABNORMAL → liver specialist

TREATMENT

- Ursodeoxycholic acid (UDCA) ≡ 1st line for tx of maternal sxms
  - 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

COMPLICATIONS

[~1.2% of stillbirth at term is attributable to ICP]

1. higher stillbirth rate
   - Pathophysiology UNKNOWN, but hypothesized to be 2/2 fetal arrhythmia or placental vasospasm
   - data suggest risk of stillbirth is associated w/ TBA level
2. higher preterm birth, asphyxia, respiratory distress syndrome, meconium-stained fluid
   - prevalence of spontaneous preterm birth ↑ w/ ↑ TBA level
3. higher risk for preeclampsia