

**PROTOCOL #3** – Testing and Triage, University of New Mexico

**Intrahepatic Cholestasis of Pregnancy**

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I. General

Pruritus, jaundice and elevated serum bile acids

1. Onset of pruritis is in the second half of pregnancy (usually >30 weeks), beginning at night and then may develop into persistent debilitating symptoms.
2. Jaundice may develop in up to 75% of cases within several weeks after the onset of pruritis.
3. Elevated bile acids may be the most sensitive test. However, elevated transaminases can be seen ( usually < 300). Total bilirubin can be elevated, but is usually no greater than 6mg/dl.
4. ICP poses serious risk the developing fetus especially when bile acid levels exceed 40 micromol/L. Fetal risks include:
  - prematurity, meconium stained amniotic fluid, fetal distress, neonatal respiratory distress syndrome and fetal demise.
5. ICP is also associated with preterm labor and postpartum hemorrhage.

II. Management

1. Women with cholestasis in pregnancy should be delivered at 37 completed weeks of gestation, sooner for severe symptoms pending fetal maturity.
2. Frequent fetal surveillance is strongly urged and should include a twice weekly non-stress test and amniotic fluid index or full biophysical profile.
3. Vitamin K supplementation (10mg PO q day) is recommended.
4. Low fat diet.
5. ICP is a diagnosis of exclusion and work up to eliminate other hepatobiliary pathology should be entertained, most notably: cholecystitis, cholelithiasis, infections hepatitis, HELLP syndrome, acute fatty liver and cirrhosis.
6. After delivery, combined oral contraceptives are not absolutely contraindicated but should be administered with caution as they may exacerbate cholestasis.

III. Therapy

- 1) Ursodeoxycholic acid (UDCA) – 15 mg/kg/day divided BID/ TID.
  - a. Most effective first line treatment for eliminating symptoms and normalizing labs.
  - b. Thought to provide protection against cholangiocyte and hepatocyte toxicity, as well as, promoting hepatobiliary bile acid secretion.
  - c. Enhanced therapeutic effect by concurrent administration of SAME.

- 2) S-adenosyl-L- methionine (S-AMe) – 500mg PO BID
  - a. Effective alone or in combination with UDCA.
  - b. Thought to enhance trans-sulfuration of bile acids and therefore secretion.
- 3) Dexamethasone 12mg PO qday x 7days then taper.
  - a. Decreases fetal-placental estrogen production
  - b. Improves clinical symptoms but less so than UDCA
  - c. Use with caution due to potential fetal adverse effects with prolonged use of corticosteroids
- 4) Cholestyramine 4gm PO qd – bid (up to 16gm/day)
  - a. Not as effective and largely replaced by UDCA therapy
  - b. Functions by binding bile salts and fat preventing their return to the enterohepatic circulation.
  - c. May lead to malabsorption of fat soluble vitamins
- 5) Antihistamines (diphenhydramine, hydroxyzine)
  - a. Relief of pruritic symptoms mainly through sedative side effects.

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