Sample HelpDesk Answer Submission: **Therapeutic Question**

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Title: Treatment for cholestasis of pregnancy
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What is the best treatment for cholestasis of pregnancy?

Evidence-Based Answer

Ursodeoxycholic acid (UDCA) is the best treatment for intrahepatic cholestasis of pregnancy (ICP), as the drug is associated with increased gestational age at delivery and birth weight and decreased maternal pruritus, serum bilirubin, and transaminase levels (SOR: **B**, retrospective cohort).

Evidence Summary

In 2001, a Cochrane review examined 9 RCTs (N=227) on the treatment of intrahepatic cholestasis of pregnancy.[1] The review found insufficient evidence to recommend any treatment for cholestasis of pregnancy, based on small studies of poor design that did not allow the pooling of results. However, newer evidence has come out since 2001 that shows greater support for the use of UDCA.

A 2005 retrospective trial evaluated the efficacy and overall safety of using UDCA in 32 patients with ICP before 34 weeks' gestation compared with a control group of 16 women with ICP who either received intravenous or oral placebo.[2] The control group patients were pooled from 2 previous studies conducted by the same facility and were contemporaries of the patients in the UDCA group.

After 3 weeks of treatment, patients taking UDCA had statistically decreased pruritus from 3.2 to 1.2 on a 1 to 5 progressive symptom scale combining severity and frequency of pruritus ($P<.05$). The UDCA-treated group had decreased serum bilirubin (from 0.75 to 0.50 mg/dL; $P<.05$) and alanine transaminase (ALT; from 31 to 10 U/L, $P<.05$) as well. The placebo control group also showed a statistical decrease in pruritus (from a score of 3.0 to 1.8; $P<.05$) but no significant changes to bilirubin or ALT. Overall, 66% of UDCA treated patients had deliveries at ≥37 weeks compared with 13% of control patients ($P<.01$). Mothers treated with UDCA had infants that weighed a mean of 500 g more than control infants ($P<.01$). All infants born to mothers treated with UDCA had normal development at 3 months of age. Eighty-one percent (26 of 32) of children born to mothers treated with UDCA were reexamined after 1 to 12 years; they and their mothers were found to be healthy with no significant associated comorbidities.[2]

In 2009, the European Association for the Study of the Liver published a clinical practice guideline on the management of cholestatic liver disease, based on a systematic review of 6 RCTs and 1 cohort trial involving 580 pregnant women with ICP.[3] UDCA significantly decreased overall pruritus compared with various combinations of placebo, dexamethasone,

cholestyramine, and S-adenosyl-L-methionine (no pooled data was reported, however). Liver function tests showed improvement in 67% to 80% of patients with ICP when using UDCA. A limitation of the studies involved was that they did not evaluate if UDCA improved fetal morbidity and mortality. The authors concluded that UDCA (10–20 mg/kg per day) should be first-line treatment for improving pruritus and liver function tests in women with ICP.[3]

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The opinions and assertions contained herein are those of the authors and are not to be construed as official or as reflecting the views of the US Army Medical Department, the Army at large, or the Department of Defense.

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