

MANAGEMENT OF BILIARY DISEASE IN PREGNANCY

Recommendations:

7. ERCP can be performed when indicated for pregnant women presenting with biliary disease that strongly necessitates intervention such as biliary pancreatitis, symptomatic choledocholithiasis, and/or cholangitis. Minimizing fetal exposure to fluoroscopy is imperative (strong recommendation, low level of evidence).
8. Symptomatic cholecystitis should be managed with early surgical intervention with laparoscopic cholecystectomy (strong recommendation, low level of evidence).

Cholelithiasis is common in pregnancy owing to the increased estrogen levels, causing cholesterol supersaturation and increased gallstone formation. Cholecystitis is the second most common surgical condition in pregnancy and occurs in ~1 in 1,600 to 1 in 10,000 pregnancies. The incidence of cholelithiasis in pregnant women is 3.5% (10). In the setting of laboratory testing indicating a possible biliary etiology, the first step in diagnosis should be an abdominal ultrasound, which has 95% sensitivity for the diagnosis of gallstones. Biliary pancreatitis, symptomatic choledocholithiasis, and cholangitis may have poor fetal outcomes without intervention. ERCP safety has been reported in multiple series, with some reports of increased pancreatitis risk (16%). Reducing fetal exposure to radiation should be attempted by limiting fluoroscopy time, external fetal shielding, and adjusting the patient position (16–20).

Symptomatic cholecystitis had been previously managed conservatively, but more recent data suggests high rates of recurrent symptoms (40–90%), increased rates of hospitalizations, preterm labor and deliveries, and spontaneous abortions when intervention is deferred. The development of gallstone pancreatitis portends a high rate (10–60%) of fetal demise. Thus, early surgical intervention with laparoscopic cholecystectomy after ERCP is preferred (21,22). One recent study of 9,714 women who underwent cholecystectomy while pregnant, reported longer length of stay than non-pregnant women and maternal and fetal complication rates of 4.3% and 5.8%, respectively (23).

LIVER MASSES IN PREGNANCY

Recommendations:

9. Asymptomatic hemangioma and focal nodular hyperplasia do not need routine imaging or surveillance during pregnancy (strong recommendation, very low level evidence).
10. Hepatic adenomas should be monitored with ultrasound during pregnancy for growth. Patients with large adenomas (>5 cm) should be referred for resection before pregnancy (strong recommendation, low level of evidence).

Fortunately, liver masses discovered during pregnancy are rare and most commonly are benign. Hemangiomas, focal nodular hyperplasia, and hepatic adenoma may be discovered on routine imaging with ultrasound. Further characterization with MRI or

tagged RBC scan may be needed. Patients presenting with large hemangiomas can present asymptotically or with pain and abdominal distension. Spontaneous rupture of hemangiomas is exceedingly rare, even with large lesions, thus routine symptomatic follow-up and standard vaginal delivery is safe. Focal nodular hyperplasia is found in 3% of the population, and multiple case series in pregnant women reported routine pregnancies with good clinical outcomes. Hepatic adenomas have a higher risk of growth during pregnancy owing to hormonal stimulation, and ultrasound monitoring should be done during pregnancy. If a diagnosis of large hepatic adenoma is made in a young woman of child-bearing age, appropriate consultation and follow-up should be performed. If a hepatic adenoma is larger than 5 cm or rapid growth is noted, surgical or radiological intervention should be recommended before pregnancy. The ACG Clinical Guideline on the diagnosis and management of focal liver lesions further details this topic (24–27).

LIVER DISEASES UNIQUE TO PREGNANCY

Recommendations:

11. The treatment of hyperemesis gravidarum (HG) is supportive and may require hospitalization (strong recommendation, very low level of evidence).
12. Because of increased risk of fetal complications with intra-hepatic cholestasis of pregnancy (IHCP), early delivery at 37 weeks is recommended (strong recommendation, very low level of evidence).
13. Ursodeoxycholic acid (UDCA) should be given at 10–15 mg/kg to women with IHCP for symptomatic improvement (strong recommendation, moderate level of evidence).
14. Preeclampsia with hepatic involvement elevates the diagnosis to severe preeclampsia. After 36 weeks, women with severe preeclampsia should be delivered promptly to limit maternal and fetal complications (strong recommendation, very low level of evidence).
15. Hemolysis, elevated liver enzymes, and low platelets (HELLP) syndrome should be managed by prompt delivery, especially after 34 weeks gestation (strong recommendation, very low level of evidence).
16. Platelet transfusion to 40,000–50,000 cells/ μ l should be considered before delivery, especially if cesarean section is likely (conditional recommendation, very low level of evidence).
17. Women with acute fatty liver disease of pregnancy (AFLP) should be delivered promptly; expectant management is not appropriate (strong recommendation, very low level of evidence).
18. All women with AFLP and their children should have molecular testing for long-chain 3-hydroxyacyl-CoA dehydrogenase (LCHAD; conditional recommendation, moderate level of evidence).
19. The offspring of mothers affected by AFLP should be monitored carefully for manifestations of deficiency of LCHAD including hypoketotic hypoglycemia and fatty liver (conditional recommendation, very low level of evidence).