

Liver Diseases of Pregnancy

Episode 15:



Liver Disease in Pregnancy

Differential Diagnosis for Abdominal Pain in Pregnancy

- Obstetrical** : Miscarriage, Ectopic Pregnancy, Hyperemesis Gravidarum, Abruption, Preeclampsia, HELLP, AFLP, Labour, PTL, Braxton Hicks
- Non-Obstetrical** : UTI/Pyelonephritis, Ovarian torsion, Appendicitis, Gallbladder disease, Liver disease, Constipation, Reflux disease, PUD, Pancreatitis, Trauma

Differential Diagnosis for Pruritus in Pregnancy : Atopic or contact dermatitis, Systemic disease (liver, kidney, thyroid), pruritus gravidarum, prurigo of pregnancy, polymorphic eruption of pregnancy.

Differential Diagnosis for Elevated Liver Enzymes : Viral hepatitis, Drug-induced liver injury (DILI), Primary sclerosing cholangitis (PSC), Fatty liver disease, Cholecystitis/Biliary tree disease, AFLP, HELLP, Preeclampsia, Cholestasis, Hyperemesis gravidarum, autoimmune hepatitis, Budd-chiari, Right-sided heart failure

	Cholestasis	Acute Fatty Liver of Pregnancy	HELLP	Preeclampsia
Typical Time of Onset	3 rd trimester	3 rd trimester	Late second/Early third trimester	Late second/Early third trimester
Risk Factors	Genetics Prior history of ICP (90% recurrence risk) History of HCV Multiple gestation >35 years of age IVF	Genetics (<i>LCHD homozygous mutation</i>) Prior history of AFLP Male fetus Multiple gestation Fetus with a fatty oxidation disorder	Prior history Similar risk factors as for preeclampsia	Prior history Antiphospholipid syndrome Chronic HTN, renal disease, diabetes Multiple gestation Extremes of maternal age
Clinical Presentation	+++ Itchy especially to palms & soles <i>Rarely</i> , dark urine, pale stools, jaundice	Can initially be vague symptoms (<i>fatigue, malaise, anorexia</i>) Abdominal pain Polyuria/Polydipsia *Swansea Criteria*	RUQ pain +/- HTN, symptoms of preeclampsia	HTN Headache Visual changes Chest pain, Dyspnea RUQ pain, Nausea/Vomiting Edema Hyperreflexia Fetal (<i>oligohydramnios, IUGR</i>)
Investigations	Bile acids (<i>to make diagnosis</i>) LFTs <i>+/- additional investigations to rule out other conditions as indicated by history and physical</i>	LFT (<i>elevations</i>) CBC (<i>WBC high</i>) HYPOglycemia Ammonia Creatinine Uric Acid INR UPCR (<i>look for preeclampsia</i>)	CBC (<i>anemia, thrombocytopenia</i>) LFTs (<i>look for elevations</i>) Fibrinogen (<i>if DIC concern</i>) Creatinine, UPCR +/- Liver u/s	Urine PCR CBC LFTs Creatinine
Management	Ensure other diseases have been excluded (<i>AFLP, HELLP, PSC, DILI, Viral hepatitis...</i>) Symptom support Fetal surveillance Consult OBGYN Delivery is the only cure and IOL at 37+ weeks would be appropriate. Post-partum : recheck LFTs and bile acids for resolution @6-8 weeks	Delivery ASAP! Fluid Resuscitation Correct lab abnormalities Manage hypoglycemia Consult to OBGYN, Anesthesia, ICU, NICU Post-partum : recheck labs for resolution 4-8 weeks. Should have specialist management early in a subsequent pregnancy	Delivery BP stabilization prn <i>May possibly be able to delay delivery by 24-48 hours if maternal and fetal patient stable to give steroids</i> Post-partum : recheck any abnormal labs for resolution	Acute Management Considerations : BP stabilization (<i>Labetalol, Adalat, Hydralazine per local availability/protocols</i>) Seizure prophylaxis with MgSO4 if indicated (<i>antepartum management not part of this episode</i>) Consult OBGYN re. Delivery timing
Complications	PTB (<i>spontaneous & iatrogenic</i>) Mec amniotic fluid NICU admission Stillbirth (potentially higher risk of developing GDM or preeclampsia)	Hemorrhage Pancreatitis GIB DIC Renal failure Preeclampsia/HELLP	Liver hematoma Liver rupture DIC Renal failure Maternal death PTB Perinatal death	Stroke Pulmonary Edema Liver failure Seizure Placental abruption Renal failure PTB IUGR Fetal death

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Patient Resources :

RCOG Patient information : <https://www.rcog.org.uk/for-the-public/browse-all-patient-information-leaflets/obstetric-cholestasis-patient-information-page/>

British Liver Trust Info for Patient <https://britishlivertrust.org.uk/information-and-support/living-with-a-liver-condition/liver-conditions/intrahepatic-cholestasis-pregnancy/>