BACKGROUND

Intrahepatic cholestasis of pregnancy (ICP) is a disorder where bile acid transport is disrupted during pregnancy. Leads to elevated bile acids in the maternal circulation that can affect the fetus.

Main risks during pregnancy include preterm labor, respiratory distress of the newborn and stillbirth (up to 3% risk in severe cases).\(^1\)

Exact cause is unknown, thought to be a combination of genetic, environmental and hormonal causes.

Genes such as ABCB4, ABCB11 and ATP8B1 have been implicated.\(^2,3\)

ABCB4 is responsible for about 15% of cases.\(^4\)

Recent research shows there are increased medical risks after an ICP pregnancy and the possibility of an underlying liver disorder being the cause of the elevated bile acids.

ICP may “unmask” an underlying liver disorder, sometimes the ICP is the first sign for the patient.\(^2\)

FUTURE MEDICAL RISKS

INCREASED RISK OF HEPATOBILIARY DISEASE INCLUDING:

- Gallstones
- Pancreatitis
- Non-alcoholic fatty liver disease (NAFLD)
- Cirrhosis
- Increased risk of hypothyroidism and other autoimmune disorders.\(^5\)

Studies have shown up to 3.5X increased risk of subsequent hepatobiliary diseases and a significant increase in the need for cholecystectomy.\(^6\)

Time to development of future liver abnormalities is also shorter.\(^2\)

ABCB4 gene that causes ICP also increases risk for gallstones and may play a common role.\(^3\)

Hepatitis C increases risk for ICP and may be responsible for studies which have shown increased risk of cirrhosis and hepatobiliary cancer in patients with ICP.\(^5\)
UNDERLYING LIVER DISORDERS

More likely in patients with first trimester ICP, severe levels over 40, or a familial history of several members with ICP or gallstones under the age of 40.\(^2,4\)

ICP is not thought to be the cause of liver damage. The underlying risk factors that led to ICP are also thought to lead to future liver disease.\(^7\)

CONDITIONS LINKED WITH ICP:

- Primary Biliary Sclerosis
- Primary Sclerosing Cholangitis
- Hepatitis C
- Progressive Familial Intrahepatic Cholestasis (PFIC)
- Benign Recurrent Intrahepatic Cholestasis (BRIC)
- Alpha-1 Antitrypsin Deficiency

Risks for fetus/pregnancy increase as bile acid levels become more elevated, most risks above the level of 40 µmol/L.\(^1\)

Since risks follow bile acid levels, levels should be treated even if elevated from an underlying disorder and not “true” Intrahepatic Cholestasis of Pregnancy.\(^8\)

Main treatment is ursodeoxycholic acid, fetal monitoring an appropriately timed early delivery.\(^1\)

AFTER PREGNANCY SCREENING

It is recommended to retest a CMP and total bile acid level 6-12 weeks after pregnancy.

If liver function tests or bile acids remain elevated, work-up for other liver conditions should be undertaken.\(^1,2\)

Genetic screening is recommended by AASLD for patients with bile acids greater than 100 µmol/L, recurrent ICP, or first trimester onset.\(^9\)

ICP patients have about a 3-fold increase risk of a drug induced cholestasis with hormonal contraception and if itching returns with contraception, liver function testing should be performed.

For a more detailed summary, please visit our webpage at https://icpcare.org/healthcare-provider/considerations-after-intrahepatic-cholestasis-pregnancy/

REFERENCES:

Scan QR code for references or visit:


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