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Case Report

Gilbert's Syndrome in Pregnancy and its Outcome

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Abstract

Gilbert's syndrome (GS) is a benign condition presents with recurrent jaundice due to isolated hyperbilirubinemia with predominant unconjugated component. Here we present a case of Gravida 3, Abortion 2 with jaundice, with 37 weeks of POG with GHTN, GDM and IUGR. Gilbert's syndrome was diagnosed with isolated raised unconjugated hyperbilirubinemia after excluding other causes, induction was done in view of GHTN, GDM and IUGR. Emergency LSCS done in view of fetal distress, Post-operative period was uneventful.

Keywords: *Gilbert syndrome; GHTN; GDM; IUGR; Emergency Cesarian Section*

Introduction

Gilbert's syndrome is a benign familial condition inherited as Autosomal recessive pattern, which results from mutation to the gene UGT1A1 located on the long arm (q) of chromosome 2 (2q37) which results in deficiency of the enzyme uridine diphosphoglucuronate-glucuronosyl transferase 1 A1 (UGT1A1) [1].

The conjugation process of bilirubin to water soluble glucuronic acid is disrupted therefor affecting its excretion into bile. It is one of the cause of unconjugated hyperbilirubinemia and sometimes presents as mixed type. Individuals with GS retain approximately one third of the normal UGT1A1 enzyme activity.

Prevalence is reported to be 7% in general population, it is common among men than women in the ratio of 2-7:1. It is commonly asymptomatic unless triggered by dehydration, fasting status and acute illnesses [2].

Case Report

Mrs X, a 27 years old, Gravida 3, Abortion 2 at 37 weeks of gestation with GHTN with GDM on diet. Patient was diagnosed to have GHTN and was on tab labetalol 100mg BD since one month. come for routine antenatal checkup, on examination jaundice was present, vital signs were normal, per abdomen clinically IUGR was present which was confirmed with scan.

Gastroenterologist opinion was taken and was diagnosed to have Gilbert syndrome.

Except hyperbilirubinemia (2.5 mg/dl, predominantly unconjugated type) rest of the parameters were normal in LFT. In addition, infective screening such as Hepatitis B, Hepatitis C and Human Immunodeficiency Virus were non-reactive. Hepatobiliary system ultrasonography was also reported to be normal.

She was diagnosed to have GS after excluding other causes of jaundice. Induction was planned in view of 37 weeks POG, with GHTN, GDM with IUGR. she underwent emergency LSCS in view of fetal distress and delivered a baby boy with birth weight of 2.5 kg. Postoperative period was uneventful.

Discussion

Gilbert syndrome is a diagnosis of exclusion therefore making the diagnostic process difficult and prolonged. It presents with recurrent mild unconjugated hyperbilirubinemia in the absence of haemolysis or underlying liver disease. most affected individuals are asymptomatic or may only exhibit mild yellowing of skin, mucous membranes and sclera of the eye. Augustine Gilbert and Pierre Lerebullet first described gilbert syndrome in 1901. Other names of GS are Constitutional liver/hepatic dysfunction, Familial nonhemolytic jaundice, Gilbert-Lereboullet syndrome, Gilbert's disease, Hyperbilirubinemia 1, Meulengracht's disease, Unconjugated benign bilirubinemia, but Gilbert syndrome is the most commonly used name for this condition.

Even-though congenital disorder, it is rarely diagnosed before puberty. Dehydration, fasting or stress precipitates Gilbert syndrome. The hyperbilirubinemia is mild, usually < 6 mg/dl. The genetic defect in the TATA box of the promotor region of the gene encoding for bilirubin UDP-Glucuronyltransferase is associated with Gilbert's syndrome [3].

30% of patients are usually asymptomatic. Some presents with symptoms like fatigue, nausea, loss of appetite, jaundice (recurrent and mild), vomiting, hypoglycaemia, itching and pain abdomen. These symptoms are usually precipitated by infection, dehydration, stress, excretion, alcohol consumption, fasting. In addition to mildly elevated total bilirubin level with predominant unconjugated hyperbilirubinemia in the absence of hemolysis or structural liver damage. normal results from other investigations also supported diagnosis. The other causes of hemolysis and infective causes of jaundice to be excluded, hence it is a diagnosis of exclusion [2].

There are limited studies available about GS in pregnancy, few cases reported which had favourable obstetric outcome. High anxiety score was found during patients' diagnostic phase, which could be associated with poor obstetric and neonatal outcomes, thus reassuring her regarding the benign nature of GS is of great importance to reduce anxiety level.

Specific investigations: Alkaline methanolysis and thin layer chromatography accurately separates and measures total serum as conjugated and unconjugated fractions. High performance liquid chromatography (HPLC) of serum shows decreased bilirubin monoglucuronides and increased unconjugated bilirubin. Polymerase chain reaction (PCR) is novel and rapid method to detect genetic polymorphisms in TATA box of UDPGT1 gene using fluorescence resonance energy transfer.

Differential diagnosis:

1. Crigler-Najjar syndrome with persistent and intense jaundice with activity of UDP1A1 enzyme activity [3].
2. Rotor syndrome, due to impaired storage of bilirubin in the liver, most of them are asymptomatic, they have high levels of conjugated bilirubin, it is inherited as autosomal recessive trait [3].
3. Dubin-Johnson syndrome has persistent hyperbilirubinemia, sometimes associated with hepatomegaly and/or splenomegaly. They have high levels of conjugated hyperbilirubinemia with autosomal recessive inheritance [3,4].

Gilbert syndrome doesn't have any adverse effect on pregnancy outcome, unless it is associated with infection, stress and dehydration. As reported cases of Gilbert syndrome in pregnancy are less therefore further studies are necessary to analyze the outcome.

Conclusion

Gilbert syndrome is self-limiting and benign with good prognosis. Once the diagnosis is made after excluding other causes, reassurance is a best policy to have good outcome [2].

Bibliography

1. Mini Mohan., *et al*. "Pregnancy with Gilbert Syndrome - A Case Report". *Journal of Clinical and Diagnostic Research* 8.6 (2014): OD01-OD02.

2. Soo Hual Teoh., *et al*. "A case of Gilbert's syndrome diagnosis during pregnancy". *Bangladesh Journal of Medical Science* (2020).

3. Namita Roy-Chowdhury and Jayanta Roy Chowdhury. "Gilbert Syndrome; Rare disease database". NORD.

4. Sanaa Kamal Sara Abdelhakam., *et al*. "The frequency, clinical course, and health related quality of life in adults with Gilbert's syndrome: Longitudinal study". *BMC Gastroenterology* (2019): 19-22.

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