Assessing the Feto-Maternal Outcome of Chronic Liver Disease in Pregnancy: An Obstetric Nightmare

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Chronic liver diseases, cirrhosis in pregnancy, Budd Chiari Syndrome, splenomegaly in pregnancy, jaundice in pregnancy

Dear Dr. Papageorghiou,

Recently, obstetricians have come across more pregnancies complicated by chronic liver diseases (CLD) due to an advancement in the diagnosis of non-communicable diseases. CLD in pregnancy is associated with adverse feto-maternal outcome. This study addressed the pattern of liver diseases in the obstetric population with special attention to feto-maternal outcome.

It was prospective cohort study over a period of three years. Institutional ethics committee approval was obtained prior to its commencement. Written informed consents were taken from all participants. Pregnant women with diagnosed liver disorders and delivering in the labour wards were included. Women not willing to participate or those delivering outside and being referred in the postpartum period were excluded. Data was collected after a detailed interview of patients and their relatives. Hospital records were reviewed and prospectively followed till discharge. More than two months of treatment or at least five antenatal visits was considered as booked. Data relating to obstetric parameters like age, parity, presence of previous stillbirth and complications specific to pregnancy was collected. In the postpartum period, data was collected pertaining to gestation at delivery, mode of delivery, birth weight and congenital malformations. Post partum mothers were monitored for any complications till discharge.

Extra hepatic portal venous obstruction (EHPVO) with associated varices and splenomegaly had the highest prevalence (28.9%). Next common was non-alcoholic steato-hepatitis (26.3%) followed by chronic Hepatitis-C infection (23.6%). The prevalence of liver cirrhosis, Budd-Chiari Syndrome, Gilbert Syndrome and non-cirrhotic portal fibrosis (NCPF) were 6.6%, 5.2%, 5.2% and 3.9% respectively (Table-1). Most pregnancies were booked (72.4%). Majority of women were in the age group of 25-29 years (39.5%). In 77.6% women, disease activity was diagnosed before pregnancy.

Among pregnancy specific complications, obstetric cholestasis was the most common. In the study population, 23.6% and 63.2% had preterm and term deliveries, while 51.3% and 31.6% patients had vaginal and caesarean delivery respectively. There were no cases of maternal near miss and mortality. Analyzing the fetal outcome, there were 13.2% abortions, 84.2% live births, 2.6% stillbirths and 28.2% fetal growth restriction with no neonatal death. No babies had any gross congenital malformations. Low birth weight, very low birth weight and extremely low birth weight was observed in 30.3 %, 2.6 % and 3.9 % babies respectively. There was no clinical macrosomia.

Maternal immune tolerance involving immunological shift is the key of successful pregnancy. The main risk in EHPVO is variceal bleeding, which may be life threatening [1]. Pregnancy outcome is successful if the disease is adequately controlled prior to pregnancy [1]. Pregnancy with Hepatitis-C and liver cirrhosis is a high risk combination for mother and foetus and is associated with worsening of liver decompensation and progression to portal hypertension, ascites, hepatorenal syndrome, hepatic encephalopathy and variceal hemorrhage [3,4]. The overall outcome in patients with NCPF is favorable despite a significant increase in incidence of complications related to portal hypertension [5].

Hepatic diseases in pregnancy have to be managed with multidiscipilinary expertise. The key to successful management includes preconception counselling and meticulous antepartum, intrapartum and postpartum care.

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`Table 1.docx` available at https://authorea.com/users/435556/articles/580956-assessing-the-feto-maternal-outcome-of-chronic-liver-disease-in-pregnancy-an-obstetric-nightmare