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AN OBSERVATIONAL STUDY TO EVALUATE MATERNAL AND PERINATAL OUTCOME IN PREGNANCY WITH LIVER DISEASES

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ABSTRACT

Background: Liver diseases in pregnancy is of major concern because of the delay in diagnosis due to overlapping clinical and laboratory parameters making it difficult to detect and treat timely. **Objective:** To observe pattern of presentation of pregnant women with diagnosed liver diseases and study their influence on pregnancy and maternal and fetal well-being. **Method:** An observational study was conducted for a period of one and half year comprising of observing, analyzing and promptly treating 150 cases of pregnancy with diagnosed liver diseases and not including those liver dysfunctions that are pregnancy associated. **Result:** Out of 150 cases, total of 38% of the cases required blood transfusion to manage complication such as PPH (blood coagulopathy), DIC arising due to inability of liver to produce coagulation factors resulting in increased tendency of hemorrhage. In our study 5.3% of mortalities occurred in a study group of 150 despite of prompt treatment. Perinatal outcome was assessed. Most common complication being prematurity 24% (n=36) LBW 34% (n=51) still birth rate 10% (n=15). NICU admission were 23.3% (n=35) of which 63% (n=22) required NICU admission of less than 7 days and 37% (n=13) required NICU admission of more than 7 days.

KEYWORDS : Liver dysfunction, DIC, postpartum hemorrhage, and prematurity.

INTRODUCTION

Liver disease during pregnancy is more common than expected and calls for multi disciplinary approach and specialized intervention. It is a concern to determine if changes in liver physiology may progress into liver disease, to assure early diagnosis and early treatment. For surplus surveillance of mother & fetus health outcome, liver disease during pregnancy may require intervention from an obstetrician and gastroenterologist. Studies have shown that liver diseases have a prevalence of at least 3% of all pregnancies in developed countries, and they are classified into two main categories.

1. Liver dysfunction in pregnancy can be due to pregnancy associated liver diseases such as hyperemesis gravidarum, acute fatty liver of pregnancy, Intrahepatic cholestasis of pregnancy, Hypertension associated liver diseases: Preeclampsia/eclampsia, HELLP syndrome, liver infarction/ rupture.
2. Exacerbation of pre-existing liver disease unrelated to pregnancy i.e.

A) Pre-existing liver diseases:

Viral, post liver transplantation, cirrhosis and portal hypertension, autoimmune hepatitis, primary sclerosing cholangitis, primary biliary cholangitis, metabolic;

Wilson'sdisease, hemochromatosis, pre-existing liver diseases

B) coincidental with pregnancy such as autoimmune, viral, vascular, Drug induced hepatotoxicity.

Prompt interventions must be carried out in order to diagnose these diseases as pregnancy or the existing liver disease, which may lead to disease progression that may result in maternal and perinatal mortality significantly and resulting serious life- threatening sequeal in mother in the form of postpartum hemorrhage due to coagulation failure, disseminated intravascular coagulation, hepatic encephalopathy, multi organ dysfunction and maternal mortality3. Perinatal outcome is adversely affected by the severity of liver disease in the mother resulting in pre term labor thus resulting in prematurity, PROM, low birth weight, meconium-stained liquor during labor resulting in increased NICU admission and prolonged hospitalization, stillbirth and intrauterine fetal demise.

MATERIAL AND METHOD

This observational study was carried out in the Department of Obstetrics and Gynecology at a Tertiary Health Care for a period of one and half year starting from Jan 2020 to June 2022, in which a total of 150 pregnant women presented with various liver diseases in routine and in emergency and were examined and investigated for categorizing into liver diseases not in conjunction with pregnancy and maternal and perinatal outcome were monitored after taking appropriate measures and giving supportive treatment. A criterion of exclusion was to not include those cases that had liver pathology induced by pregnancy. All the pregnant women presenting with nausea, vomiting, jaundice, decreased appetite and altered sensorium with jaundice were investigated and their pregnancy outcomes were analyzed.

DECLARATIONS

Funding: No funding

Conflict Of Interest: None

Ethical Approval: This study was approved by the institutional ethical committee

RESULT AND DISCUSSION

Out of 150 cases, 61.3 % (n= 92) were multigravida. Time of presentation in our health care facility was 11.3% (n=17) for those presenting before 28 weeks and perinatal prognosis was affected terribly and accounted for 9.3% (n=14) stillbirths.

The percentage of women remains the most common type of viral presenting in gestational age ranging hepatitis found in pregnant women5. from 28-37 weeks is 42.7% (n=64), NAFLD was found in 4.7% (n=7) cases preterm vaginal delivery occurred in and was primarily and accidental finding 23.3% (n=35) of cases. in most cases.

CONCLUSION

Out of 150 cases, 18.6% pregnancies faced severe life threatening complication and maternal mortality of 5.3%.Perinatal outcome consisted of early neonatal death of 9.3% of delivered babies, still birth comprising of 10%. Thus liver diseases have significantly proved to increase maternal and foetal morbidity and mortality by several folds. This warrants carrying out measures targeting early detection and multi disciplinary approach consisting of an obstetrician, gastroenterologist and neonatologist for management and improving maternal and infant mortality that still poses a challenge to our state and our country as a developing nation.

Table 1 : Distribution Of Cases According To Type Of Liver Disease.

e Type of Liver Disease	No. of Cases	Percentage
HepatitisA	15	10.0
Chronic Hepatitis-B	65	43.3
Acute Hepatitis-B	8	5.3
Chronic Hepatitis-C	2	1.3
HepatitisE	9	6.0
Acute viral hepatitis	27	18.0
Acute Fulminent hepatitis	6	4.0
Cirrhosis	2	1.3
Non-alcoholic fatty liver of pregnancy	7	4.7
Wilson	3	2.0
Portalhypertension	6	4.0
Total	150	100.0

Table2: Distribution Of Cases According To Mode Of Delivery.

Mode of delivery	No. of Cases	Percentage
Emergency caesarean section	40	26.7
Preterm vaginal delivery	35	23.3
Spontaneous abortion	16	10.7
Term vaginal delivery	57	38.0
Not delivered	2	1.3
Total	150	100.0

Table3: Distribution Of Cases According To Maternal Complication.

Maternal Complication	No. of Cases	Percentage
DIC	8	5.3
DIC, hepatic encephalopathy	1	0.7
DIC, MODS	1	0.7
Hepatic encephalopathy	1	0.7
MODS, hepatic encephalopathy	3	2.0
MODS, hepatic encephalopathy	1	0.7
PPH	10	6.7
PPH, DIC	3	2.0
No Complications	122	81.3
Total	150	100.0

REFERENCES

1. Ch'ng CL, Morgan M, Hainsworth I et al. Prospective study of liver dysfunction in pregnancy in Southwest Wales. Gut 2002;51:876–80.
2. Elinav E, Ben-Dov IZ, Shapira Y et al.Acute hepatitis A infection in pregnancy is associated with high rates of gestational complications and preterm labor. Gastroenterology 2006;130:1129–34.
3. Elinav E, Ben-Dov IZ, Shapira Y et al.Acute hepatitis A infection in pregnancy is associated with high rates of gestational complications and preterm labor. Gastroenterology 2006;130:1129–34.
4. Yang J, Zeng X, Men Y, Zhao L. Elective caesarean sec- tion versus vaginal delivery for preventing mother to child transmission of hepatitis B virus-Asystematic review. Virol J. 2008;5:100. doi: https://doi.org/10.1186/1743-422X-5-100.
5. Reddick KL, Jhaveri R, Gandhi M et al. Pregnancy outcomes associated with viral hepatitis. J Viral Hepat 2011;18:e394–8.
6. Patra S, Kumar A, Trivedi SS et al. Maternal and fetal outcomes in pregnant women with acute hepatitis E virus infection. Ann Intern Med 2007;147:28–33.
7. Manns MP, Czaja AJ, Gorham JD et al. Diagnosis and management of autoimmune hepatitis. American Association for the Study of Liver Diseases. Hepatology 2010;51:2193–213.
8. Rolfes DB, Ishak KG. Liver disease in pregnancy. Histopathology 1986;10:555–570.
9. NavaneethanU,AlMohajerM,Shat aMT.HepatitisEandpregnancy:Understandingthepathogenesis.Liver Int2008;28:1190-9.