Jaundice in pregnancy: A clinical case study in the Hospital of North India

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ABSTRACT :
The liver diseases unique to pregnancy include hyperemesis gravidarum, acute fatty liver of pregnancy, intrahepatic cholestasis of pregnancy, and hemolysis and elevated liver enzymes and low platelets (HELLP) syndrome. This study was undertaken to evaluate the outcome of cases of jaundice in pregnancy and to study the causes of jaundice in pregnancy.
The present study was conducted in the Hospital in the North India. A total 20 women's were included in the study. This womens had been admitted to the hospital due to jaundice in pregnancy. The etiology of the jaundice, various viruses responsible for the condition and the complications arising during the jaundice in pregnancy are reported.
Jaundice in pregnancy has adverse fetomaternal outcome. Improvement in health awareness, education & routine and regular antenatal checkups, early referrals can result in early diagnosis and treatment of jaundice in pregnancy thus reducing the fetal and maternal morbidity and mortality.
Keywords: jaundice, pregnancy, case study.

INTRODUCTION:

Liver disease that occurs during pregnancy can present a challenge for health care providers. Certain liver diseases are uniquely associated with pregnancy, whereas others are unrelated. The liver diseases unique to pregnancy include hyperemesis gravidarum, acute fatty liver of pregnancy, intrahepatic cholestasis of pregnancy, and hemolysis and elevated liver enzymes and low platelets (HELLP) syndrome. Liver disease such as acute viral hepatitis can occur in pregnancy, and pregnancy may occur in a patient with underlying chronic liver disease, including patients with cirrhosis and portal hypertension, and patients who have undergone liver transplantation.

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The diagnosis of liver disease in pregnancy is challenging and relies on laboratory investigations. Signs and symptoms are often not specific and consist of jaundice, nausea, vomiting, and abdominal pain. The underlying disorder can have a significant effect on morbidity and mortality in both mother and fetus, and a diagnostic workup should be initiated promptly.

The physical examination of a pregnant woman can show skin changes suggesting chronic liver disease, such as palmar erythema and spider angiomas. These changes are the result of hyperesterogenemia of pregnancy and occur in up to 60% of healthy pregnancies.

Alterations of laboratory test results can represent physiologic changes of pregnancy an example of this is a decreased level of serum albumin and increased level of alkaline phosphatase whereas. Elevations of transaminase, bilirubin, and prothrombin time (PT) indicate a pathologic state. The unconjugated hyperbilirubinemia of Gilbert's syndrome is not affected by the pregnancy. Clotting factors are affected by normal pregnancy and favor a hypercoagulable state. Women with inherited thrombophilia, such as factor V Leiden or antithrombin III deficiency, are at increased risk for hepatic vein and portal vein thrombosis during pregnancy.

When diagnostic imaging is needed during the workup of liver test abnormalities in a pregnant woman, ultrasonography becomes the modality of choice because of its safety for the fetus. Magnetic resonance imaging (MRI) may be used as a second line test if additional information is still necessary. Computed tomography (CT) and endoscopic retrograde cholangiopancreatography (ERCP) involve radiation to the fetus and require shielding of the uterus.

Outcome depends on the causative factors. Newly acquired primary herpes simplex hepatitis can cause fulminant liver failure, premature delivery, and stillbirths. On the other hand, pregnancy can induce eclampsia and AFLP with a potential for liver failure and death.

Extreme vigilance in recognizing physical and laboratory abnormalities in pregnancy is a prerequisite for an accurate diagnosis. This could lead to a timely intervention and successful outcome.

Conflict of interest: Authors reported none

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This study was undertaken to evaluate the outcome of cases of jaundice in pregnancy and to study the causes of jaundice in pregnancy. The etiology of the jaundice, various viruses responsible for the condition and the complications arising during the jaundice in pregnancy need to be studied.

Materials & Methodology:

The present study was conducted in the Hospital in the North India. A total 20 women's were included in the study. This womens had been admitted to the hospital due to jaundice in pregnancy.

All the case study patients were studied by clinical examination as well as diagnostic tests.

The diagnostic tests includes the Blood Tests, Liver function test, Kidney function test, Coagulation Profile, Obstetrics Ultrasonography and Abdominal Sonography. Serological monitoring for the virus identifications were also done.

The ethical committee approves the study protocol. All the patients in the study were informed about the aim and the objectives of the study.

As there is no specific treatment to the condition hence the complete bed rest and diet are considered as main factors for the management of this condition. The complete bed rest was recommended till the complete signs & symptoms of the jaundice vanished. The nutrition diet was recommended. Fruits, Fruit drinks and glucose had been recommended due to the non-tolerance of the foods.

Patient was kept in ICU with monitoring of the Haemodynamic profile, coagulation profile and renal function. Broad spectrum antibiotics like cephalosporin which are non-hepatotoxic are recommended along with antimicrobials.

Foetal monitoring was also done by biophysical method.

Results & Discussion:

The observation obtained for the above methodology was summarized as follows. The age group of the selected cases are ranging from 20-35 years. The common symptoms are nausea, vomiting, colored urination.

Table 1 indicates the various causes of the jaundice in the selected population. The condition viral hepatitis was the most common cause of the jaundice. It had been found in 50% of the selected cases. After that the Homeostatic jaundice is the second underlying cause of the jaundice.

Table 1 : Etiology of the Jaundice in the pregnancy

Causes	No. of Patients	Percentage
Viral hepatitis	10	50
Homeostatic jaundice	6	30
Acute fatty liver	2	10
Drug induced	1	5
HELLP syndrome	1	5
Total	20	100

Table 2 indicates the prevalence of the hepatitis virus in the selected pregnant womens. Hepatitis E Virus is the most common organism responsible for the jaundice. The same was reported by the ICMR in 1992. HEV infection is the most prevalent and dangerous type of viral hepatitis in Asian and African continents. The incidence reported by a study done by ICMR is as high as 80-90% in cases of viral hepatitis in pregnancies. As shown in our study also it is 83%.

Table 2 Type of Virus & No. of Cases

Type of Virus	No. of Patients	Percentage
Hepatitis E Virus	14	70
Hepatitis A Virus	2	10
Hepatitis B Virus	1	5
Hepatitis E Virus + Hepatitis A Virus	1	5
Hepatitis C Virus	0	0
Hepatitis Be Virus + Hepatitis E Virus	2	10
Total	20	100

The maximum birth was done by normal vaginal preterm. Some patients were referred to Caesarean section due to obstetric indications.

Table 3 indicates the complication and there occurrence. The Renal dysfunction is observed in 20% of cases. The Coagulation failure is the major complication seen in 55% of population. Other complications includes Septicemia, Hepatic coma and Disseminated intravascular coagulation.

Table3: Comlicatuions and occurence of liver diseases

Complication	No. of Patients	Percentage
Renal dysfunction	4	20
Disseminated intravascular coagulation	3	15
Coagulation failure	11	55
Septicemia	1	5
Hepatic coma	1	5
Total	20	100

Reyes H and Simms H F et al (3.5) studied the course of viral hepatitis in pregnancy and concluded that its course is unaltered in pregnancy, except in cases of HEV infected cases, in which cases hepatitis has more fulminant course. Intrahepatic cholestasis is found to be the second common cause of jaundice in pregnancy.

Conclusion:

Jaundice, which complicates 1 in every 1000 pregnancies in India, is associated with adverse maternal and foetal prognosis. Viral hepatitis is the most common cause of jaundice in pregnancy. Generating public awareness about the various routes of transmission of the different types of infective hepatitis, improving sanitary conditions & habits, imparting health education and knowledge of preventive measures, routine and regular antenatal checkups and viral markers as a part of routine antenatal screening canhelp in reducing the burden

of jaundice in pregnancy .

References:

1. www.clevelandclinicmeded.com/medicalpubs/.../liver-disease-in-**pregnancy**/
2. Reyes H, Simon; Intrahapatic cholestasis in pregnancy, an estrogen related disease: Semin liver dis 13; 289,1993.
3. Simms HF: Duff P: Viral hepatitis in pregnancy Semin perinatology 17; 384. 1993.
4. Dr. Neema Acharya et al, Study of Jaundice in Pregnancy, Global Journal of Medical research Gynecology and Obstetrics, Volume 1 3 Issue 2 Version 1.0 Year 2013.
5. Dr Jayati Nath et al, A Clinical Study On Jaundice In Pregnancy With Special Emphasis On Fetomaternal Outcome, OSR Journal of Dental and Medical Sciences (IOSR-JDMS), Volume 14, Issue 3 Ver. V (Mar. 2015), PP 116-119.