Hepatic Disorders in Pregnancy

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Summary

Thirty pregnant patients having jaundice who attended SGTB Hospital / Medical College, Amritsar over a period of two years were investigated and their pregnancy and labour monitored. In all 3262 pregnant patients reported during this period, thereby giving an incidence of jaundice in pregnancy as 0.9%. Of the causes of jaundice, viral hepatitis was commonest (66.7%) followed by intrahepatic cholestasis of pregnancy. Commonest maternal complication was postpartum hemorrhage (26.7%) and maternal mortality was recorded as 6.7%. Fetal morbidity was mainly due to premature deliveries (30%) and there were 5 cases of macerated still birth. Thus jaundice in pregnancy should be recognised earlier to reduce maternal and fetal morbidity and mortality.

Introduction

Hepatic disorders are a potential threat to the health of millions of Indian mothers who are already compromised by the curse of poverty, population explosion and natural catastrophies. In the developing countries of Asia, jaundice is responsible for 5-20% of maternal deaths.

Material and Methods

A study of maternal and perinatal outcome in 30 pregnant women with jaundice was carried out in the Department of Obstetrics and Gynaecology, SGTB Hospital / Medical College, Amritsar from September, 1997 to September, 1999.

Evaluation of maternal condition including age, parity, associated medical and obstetrical complications causes of jaundice, HbsAg status, liver function test and labour outcome was done. An evaluation of foetal outcome was also done.

The facilities available in the hospital were utilized. IgG or IgM antibody testing for specific viral antigens could not be done as the facilities to do so were not available in this hospital.

Observations

From September, 1997 to September, 1999 the total number of pregnant women who attended SGTB Hospital was 3262. Of these 30 had jaundice.

These patients were investigated thoroughly and their pregnancy and labour were monitored.

Demographic factors such as age and parity were analysed. Maximum number of patients were in the 20-30 years age group (70%). (Table – I).

Table I: Age distribution

Age in years	No. of cases	Percentage
15-19	6	20.0
20-24	12	40.0
25-29	9	30.0
30-34	3	10.0

The incidence was highest viz 33.3% amongst primigravidas (Table – II).

Table II : Order of pregnancy in which jaundice occurred (Gravida).

Gravida	No. of cases	Percentage
1	10	33.30
2	7	23.30
3	6	20.00
4	5	16.70
5 or more	2	6.70

Table III shows the various causes of jaundice.

Table III : Relative frequencies of different aetiologies.

	No. of cases	Percentage
Viral hepatitis	20	66.70
Intrahepatic Cholestasis of pregnancy (ICP)	5	16.70
Severe pre-eclamptic toxemia	2	6.70
Pregnancy with cholelithiasis	1	3.30
Drug induced	1	3.30
Acute Fatty Liver of pregnancy (AFLP)	1	3.30

Viral hepatitis was the commonest cause of jaundice accounting for 66.7% cases, followed by intrahepatic cholestasis of pregnancy (ICP) 16.7%. Other causes were acute fatty liver of pregnancy, severe preeclamptic toxemia, pregnancy with cholelithiasis and drug induced hepatitis.

Amongst the cause of viral hepatitis 85% were viral hepatitis A, while 15% cases were positive for the Australia antigen (HbsAg).

The levels of serum bilirubin varied widely from 1.8 mg/dL to 18.3 mg/dL. Fifty percent of the cases had serum bilirubin level greater than 5mg%.

Significantly elevated liver transaminases were seen in 12 cases (40%). Serum alkaline phosphatase >150 U/L was seen in 14 cases. It was maximum i.e. 760 U/L in a patient who had cholelithiasis.

Table IV shows the various modes of delivery. Twenty one (70%) patients had normal vaginal delivery while 4 had forceps delivery and 5 (16.7%) underwent lower segment caesarean section. Of the cases of forceps delivery, 2 were due to fetal distress and 2 were due to nonprogress of labour. Caesarean section was performed due to cephalopelvic disproportion, previous caesarean section and bad obstetric history.

Table IV : Mode of Delivery

	No. of cases	Percentage
Normal vaginal delivery	21	70.00
Instrumental vaginal delivery (forceps)	4	13.30
Lower segment caesarean section (LSCS)	5	16.70

The maternal outcome is shown in Table V. Inspite of jaundice, majority of the cases had uneventful recoveries (56.7%). Postpartum hemorrhage was the commonest complication (86.7%). It was seen most commonly in cases of intrahepatic cholestasis. Seven cases required blood transfusion out of which 3 were complicated hepatitis B cases.

Table V
Maternal Outcome

	No. of cases	Percentage
Uneventful recovery	17	56.70
Post partum hemorrhage	8	26.70
Blood transfusion	7	23.30
Wound infection	3	10.00
Death	2	6.70

There were 2 (6.7%) maternal deaths – both mothers dying of fulminant hepatic failure arising out of severe pre-eclampsia.

Table VI : Fetal Outcome

	No. of cases	Percentage
Live births	25	83.30
Macerated still births (all premature)	5	16.70
Mature live babies	19	63.30
Dysmature live babies	2	6.70
Premature live babies	4	13.33

Table VI shows the fetal outcome. There were 25 live births (83.3%) and 5 macerated premature still births (16.7%). Premature live babies were 4 (13.33%)

and dysmature live babies were 2 (6.7%). Premature live babies were mostly seen in cases of intrahepatic cholestasis of pregnancy. One baby was positive for Australia antigen.

Discussion

Twenty million cases of hepatitis are seen annually all over the world of which 4 million occur in India. The incidence of jaundice in pregnancy in this hospital was recorded as 0.9%. The incidence of hepatitis B virus infection, as detected by presence of HbsAg was 10%. Nayak et al (1989) found the incidence of hepatitis B virus infection to be 16.6%. There were 17 (56.7%) patients who were negative for HbsAg. In an endemic country like India, most people are already exposed to hepatitis A virus infection in childhood which confers immunity. Hepatitis B virus infection is transmitted enterically and is the commonest cause of viral hepatitis in our country. Khuroo (1978) reported higher attack rate of Non A Non B virus in pregnant women.

The majority of cases (40%) were in the 20-24 years group reflecting the early age of marriage of girls in this part of the country.

In most cases mothers had an uneventful recovery. Maternal outcome can be affected by malnutrition, low socioeconomic status and inadequate antenatal care. A review of various Indian studies show a decreasing trend in maternal mortality due to jaundice. Records show a mortality rate of 20% in 1976 and 14.4% in 1990. In the present study mortality rate was just 6.7%.

A higher foetal mortality rate and increased rate of preterm delivery has been reported in most studies (Lahiri, 1976; Singh et al 1979; Jayram and Devi 1988; Sheth et al 1990). The foetal mortality rate in this study was 16.7%. The rate of preterm live births was 13.3%. The incidence for seropositivity for hepatitis B in the newborn was 3.3%.

Conclusion

Jaundice coexistent with pregnancy is a burning problem that will continue to retain its importance in the 21st century. Better education of women, better sanitation facilities and increased availability of antenatal care will lead to reduction in maternal and foetal morbidity and mortality as literacy brings health consciousness as a corollary to it.

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