IJMRP

International Journal of Medical Research Professionals

Original Article

A Retrospective Study on Outcome and Management of Antenatal Patients Suffering from Jaundice in a Tertiary Care Centre in Dhanbad

Uma Shankar Prasad[1*], Sabita Sukladas[2]

[1*]Associate Professor, Department of Paediatrics, [2]Associate Professor, Department of Obs. & Gynaec, Patliputra Medical College, Dhanbad, Jharkhand, INDIA.

Article History
Received: 04 Feb 2016
Revised: 06 Feb 2016
Accepted: 08 Feb 2016

***Correspondence to:**
Dr. Uma S Prasad
Associate Professor,
Dept. of Paediatrics,
Patliputra Medical College,
Dhanbad, Jharkhand.
drusprasad.raj@gmail.com

ABSTRACT

Background: Aim of current study was to know the etiological factors of jaundice among pregnant patients, outcome and their management.

Methods: A retrospective study done at Patliputra Medical College, Dhanbad, Jharkhand in the department of Paediatrics and obstetrics & gynecology among pregnant patients with jaundice admitted in obstetric wards and labour room in 8 months duration from June 2014 to January 2015.

Results: Among total 1565 admissions, 115 (7.35%) patients presented with jaundice. Out of all admissions 40 (2.55%) were HBSAg, 14 (0.89%) HEV, 12 (0.76%) HCV, 10 (0.64%) of HBSAg and HEV co-infection, cholestasis with pregnancy 25 (1.60%) and 14 (0.90%) patients with pre-eclamptic liver disease with HELLP.

Conclusions: Jaundice in pregnancy may be deadly to mother and fetus. As the course of disease is also rapid and in short period it may affect the fetus in utero also, early detection and prompt management of these cases should be done.

KEYWORDS: Hepatic encephalopathy, Jaundice, Pregnancy, Viral markers.

INTRODUCTION

Jaundice in pregnancy whilst relatively rare, has potentially serious consequences for maternal and fetal health.[1] Incidence of jaundice in pregnancy in developing country is much higher, due to poor nutrition and poor sanitation.

Jaundice in pregnancy can be caused by viral hepatitis, intrahepatic cholestasis of pregnancy, choledocholithiasis, HELLP syndrome (hemolysis, elevated liver enzymes, and a low platelet count), severe preeclampsia, and acute fatty liver of pregnancy.[2] Course of hepatitis is unaltered by pregnancy the exception is hepatitis E, where the pregnant women who contract the disease exhibit fatality rates of 10-15%.[3] Jaundice in the pregnancy can be a grave prognosis for both mother and fetus, causing maternal mortality in 10%.[4,5] Most common cause of jaundice is viral hepatitis, hepatitis B is most commonly involved. In our study also viral hepatitis was responsible for jaundice among 61.5% cases. Early detection and management can prevent the dreaded complications of jaundice like hemorrhage and encephalopathy.

MATERIALS AND METHODS

A retrospective study was conducted among pregnant patients with jaundice admitted in the antenatal wards and labour room of department of obstetrics and gynecology, Patliputra Medical College, Dhanbad, Jharkhand. The duration of study is 8 months from June 2014 to January 2015. The fetal Outcomes were assessed by the Pediatrician. Both primigravida and multigravida were included in the study. 86 patients were unbooked and 29 were enrolled but with irregular follow up. 40 patients were preterm and 75 were term. Complete history was taken, mode of onset, progression and duration of the disease was undertaken. Patients were investigated for routine CBC, liver function test and coagulation profile.

RESULTS

Patients with age group of 20-42 years were taken. Most of the patients with jaundice were primigravida 68 (59.13%) and 47 (40.86%) multigravida. 86 (75.6%) patients were unbooked and 29 (24.35%) booked cases but showed an irregular follow up. 85 (71.7%) patient belonged to rural background and 30 (28.2%) lived in urban areas. According to socioeconomic condition, 55 (48.17%) belonged to lower middle class, 45 (38.4%) to middle class and 15(12.82%) to upper class.

Among the 1565 patients admitted in the ward 115 patients with jaundice. Out of them 40 (2.55%) of

HBSAg, 14 (0.89 %) HEV, 12 (0.76%) HCV, 10 (0.64%) of HBSAg and HEV co-infection, cholestasis with pregnancy 25 (1.60%) and 14 (0.90%) patients with pre-eclamptic liver disease with HELLP.

Table 1: Obstetric history (n=74).

Parity	N	%
Primigravida	68	59.13%
Multi gravid	47	40.86%

Table 2: Booking status.

	N	%
Not enrolled	86	75.6%
Enrolled	29	24.35%

Table 3: Socioeconomic status.

Socioeconomic status	N	%
Lower middle class	55	48.17%
Middle class	45	38.46%
Upper class	15	12.82%

Table 4: Etiological factors of jaundice in pregnancy.

Causes of Jaundice	(N)	%
Hepatitis B	40	2.55%
Hepatitis E	14	0.89%
Hepatitis C	12	0.76%
Hepatitis B and HEV co-infection	10	0.64%
Cholestasis of pregnancy	25	1.60%
Pre-eclamptic liver diseases with HELLP	14	0.90%

Table 5: Mode of delivery.

Mode of delivery	(N)	%
LSCS (38)		
Elective LSCS	50	43.47%
Failed induction/progress	12	10.43%
Vaginal delivery (36)		
Spontaneous	45	39.13%
Induced	08	6.95%

Table 6: Neonatal outcome.

Neonatal outcome	Live	Expired /IUD
LSCS	58 (50.43%)	4 (3.47%)
Vaginal delivery	45 (39.13%)	8 (6.95%)

Table 7: Maternal mortality (N=12).

Causes	N	%
Hepatic encephalopathy	4	33.33%
DIC (hemorrhage)	3	25%
HELLP	2	16.66%
Sepsis with multiorgan failure	3	25%

68 patient were at term (59.13%) >37 weeks and 47 patients before term (40.86%) <37 weeks gestation. Among these patients 9 patients reported in very serious condition with severe jaundice and deep coma.

These were the drastically ignored cases of hepatic encephalopathy. Their management was planned according to gestational age. Those who were preterm 2 doses of betnesol 12 mg was given 24 hours apart for lung maturity. Total 62 LSCS done, out of which 50 were elective LSCS and 12 were done due to failed induction. Out of 53 deliveries, 35 delivered spontaneously and 18 were induced.

Among the vaginal delivery cases, 45 live babies delivered and 8 were IUD. Those patients who underwent LSCS 58 baby were live and 4 died NICU due to very poor APGAR score at the time of birth. Patient admitted in wards, 12 (16.21%) expired due to complications of jaundice. These patient having severe jaundice, altered coagulation profile (DIC), anemia due to hemolysis (HELLP) and few of them developed sepsis with multiorgan failure. Out of 12 patients, 4 patients died undelivered.

Thus jaundice in pregnancy may be fatal for both mother and neonate. The course of disease may suddenly deteriorate even after delivery. Rapid progression of disease, leads to hepatic failure, altered coagulation profile, uncontrolled bleeding and finally multiorgan failure.

DISCUSSION

Incidence of jaundice in pregnancy varies around the world, in developed countries incidence is around 0.1%, and in developing countries incidence is much higher ranging 3-20%. In our study incidence was 3.97 %. Viral hepatitis is the most common etiological agent causing jaundice in pregnant females.[6] Cholestasis of pregnancy is another cause of jaundice among pregnant females occurring in about 1%, similar to study done by Joshi D et al. (2010).[7] In our study the most common maternal complications was hepatic encephalopathy (33.33%), DIC (disseminated intravascular coagulation) (25%), sepsis and multiorgan failure (25%), which were comparable to those stated by Tripti Nagaria et al. - encephalopathy (26.7%), DIC 15.38%. Similar to the Tripti Nagaria et al.[8] study the maternal mortality was 14.4%. However it was more than found in study by Sapre & Joshi et al.[9] in 2009 of 4.99%. Most of the cases in our study were referrals from rural areas and unbooked cases which may account to increased mortality rates.

CONCLUSION

Jaundice in pregnancy may be lethal to mother and fetus. As the course of disease is also rapid and in short period it may affect the fetus in utero also, early detection and prompt management of these cases should be done.

Cases diagnosed at periphery should be immediately referred to higher centre for better management. Management of these patients involves multidisciplinary approach by the obstetricians, medicine, gastroenterology doctors and for serious ICU admissions; help of anesthesiologist is also required.

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Source of Support: Nil.

Conflict of Interest: None Declared.

Cite this article as: Uma Shankar Prasad, Sabita Sukladas. A Retrospective Study on Outcome and Management of Antenatal Patients Suffering from Jaundice in a Tertiary Care Centre in Dhanbad. Int J Med Res Prof. 2016, 2(2); 44-46.