

JAUNDICE COMPLICATING PREGNANCY

by

B. PALANIAPPAN,* M.S., D.G.O.

M. MADHAVI,** M.D.

and

RAMOLA JANET DIANA,*** M.B.,B.S.

Introduction

The admissions for acute viral hepatitis in pregnant women have increased considerably in recent years. Infective Hepatitis during pregnancy is observed quite often in our country compared to other places. The incidence quoted by western authors vary 1 in 7,000 to 1 in 20,000. But in India the incidence is fairly high. It is observed to be 1 in 386 in Madras (Bhasker Rao 1956). Most of these cases make a complete recovery. But sometimes the disease takes a more protracted course and results in progressive cirrhosis or undergoes sudden and unexpected atrophy such as acute yellow atrophy of liver which is often fatal.

In our series, maternal death rate is more due to jaundice complicating pregnancy than other causes like haemorrhages, toxæmias and sepsis (8-16%). Hence adequate importance should be given to jaundice in pregnancy and it should be studied as a separate entity and not merely as yet another disease complicating pregnancy. The epidemiological aspect, physiopathological changes, diagnostic and therapeutic problems should

be studied and taught more seriously and purposely.

Acute yellow atrophy of liver is now recognised as a more severe form of infective hepatitis. For a long time it was understood as a disease peculiar to pregnancy. But since the publication of Zondik in 1947, the relationship of infective hepatitis to acute yellow atrophy in pregnancy is established. Coma resulting in a case of hepatitis is due to liver failure and often is a warning for the onset of acute yellow atrophy of liver.

Material and Methods

Based on clinical observation of 50 cases of pregnant women over 3 years with the view of analysing both morbidity and mortality due to jaundice, a study was undertaken of such cases admitted into maternity wards of Kilpauk Medical College Hospital, Madras, and the following results presented.

The most striking feature in Table I is a very high number of maternal deaths from jaundice complicating pregnancy. Most of the cases were unbooked. The commonest cause was due to infective or viral hepatitis (Table I).

A comparison was made by studying 100 cases of jaundice patients admitted in Medical Ward (Men and non-pregnant women) and the incidence of prognosis compared with that of pregnant women.

*Prof. in Dept. of Obstetrics and Gynaecology.

**Asst. Prof. in Dept. of Obstetrics and Gynaecology.

***House Surgeon.

Kilpauk Medical College Hospital, Madras-600 010.

TABLE I
Important Causes of Maternal Deaths

Year	Total deaths	Toxaemia		Sever No.	Anaemia		Jaundice		Haemorrhage	
		No.	%		%	No.	No.	%	No.	%
1973	19	—	—	1	5.56	1	5.56	7	39	
1974	15	—	—	—	—	3	20	1	6.6	
1975	12	1	8.8	—	—	4	33	2	16.6	
1976	15	—	—	1	6.6	4	26.6	2	13.3	

Among 10 severe cases admitted in medical side, 5 deaths were reported and the rest were discharged in a moribund condition.

Table II shows the comparison of fatality between jaundice in pregnant women and non-pregnant women and men (Table II).

TABLE II
Mortality in Jaundice

	Total	Deaths	Percentage
Men and Non-pregnant women	100	5 + 5	10
Pregnant women	50	8	16

Incidence was found to be predominant, 44 out of 50 cases, between the ages of 20 and 30 and show maximum number of deaths, 6 out of 8, occurred in this age group. The incidence in men and non-pregnant women was found to be more between the ages of 20 and 40 and prognosis also worse in this age.

Table V shows distribution according to parity. The incidence was found to be

more in primis, 15 out of 50 cases with 3 out of 8 deaths occurred in primiparae. The remaining 35 cases were equally-distributed among para 1 and 4.

The incidence appears to be commonest during the third trimester of pregnancy, 39 out of 50 (76%). This confirms the observation of Bhasker Rao and Ganapathy (1956) who analysed such cases during an epidemic of infective hepatitis.

Maternal prognosis appears to be worse in the third trimester. Number of fatal cases being 7 out of 8.

Table III shows foetal prognosis. High foetal loss was associated with premature labour and still birth. In the premature babies, the average weight was 1.4 Kg. ranging from 1 Kg. to 1.9 Kg. Among the full term babies, the average weight was 2.5 Kg. ranging from 1.9 Kg. to 3.3 Kg. This shows that jaundice in mothers predisposes to premature labour and thereby considerably reducing the birth weight of the new born.

Clinical features besides jaundice other clinical features attributable to systemic

TABLE III
Foetal Prognosis

Types of Labour	Total	Still birth	Neo-natal death	Alive	Average weight of babies
Premature Labour	17 (34%)	2	6	9	1.4 Kg.
Labour at Term	15 (30%)	1	—	14	2.5 Kg.
Total:	32 (64%)	3	6	23	

gastro-intestinal and abdominal system appeared to be the commonest. Liver function tests were done in almost all cases. There was certain degree of hepatocellular damage. The extent of this damage appears to be more with increase in gestational period.

Table IV shows the obstetric complications found among the 50 cases. Majority of cases had premature labour, the most important complication in this series (i.e. 34%). In all types of jaundice in pregnancy, the labour is short and uterine contractions are intense and abrupt (storming). These contractions resulted in foetal heart arrhythmias.

TABLE IV
Obstetric Complications

Obstetric complication	No. of cases
Premature labour	17 (34%)
P. P. H.	1 (2%)
Eclampsia	1 (2%)
Puerperal sepsis	1 (2%)

In all the 8 cases coma due to hepato renal failure was the cause of death. In 3 cases there was associated pulmonary oedema.

Discussions

Viral hepatitis was the commonest type of jaundice complicating pregnancy in our series. Similar observation is made by others also (Issac and Chandrasekaran, 1975). Pregnant women are not more susceptible to hepatitis than the general population. Incidence is same in both pregnant and non-pregnant women and in all trimesters. Viral hepatitis is particularly lethal to pregnant women. Although according to Sherlock, (1975) viral hepatitis in pregnant women runs the same course as in non-pregnant, our observation was quite contradictory to this finding. There are no reliable differences in the clinical

features of hepatitis A and B. Hepatitis A is heralded by fever, chills, headaches, fatigue, generalised weakness, aches and pains. A few days later anorexia, nausea, vomiting and liver area tenderness occur. Hepatitis B is often prolonged and insidious. Low grade fever, arthralgia, skin rashes are the typical clinical features. Liver function tests also show similar picture in both conditions.

Mortality is probably similar in both the conditions. But, higher mortality rates have been reported for hepatitis B following blood transfusion and hepatitis A during pregnancy.

Chritie *et al* (1976) reporting from Libya found a high frequency and severity of hepatitis in pregnant women. The condition appears to be a form of hepatitis probably—A. According to them, a third virus which is non-A and non-B is especially virulent in pregnant women and may be prevalent in these parts of the world. The authors postulate a nutritional basis, suggesting that women consume a diet lower and qualitatively poor in protein. This diet coupled with the demands of pregnancy predisposes to hepatitis. Pregnancy in some way alters the susceptibility of the liver to damage.

The management of viral hepatitis in pregnant women should be prophylactic.

Nutritional status is the most important prognostic factors. Hence adequate antenatal supervision, maintenance of nutrition by high proteins diet supplemented by vitamins constituted the best regime. Very good results are reported with broad spectrum antibiotics. Cortisone therapy is not favoured by all.

Termination of pregnancy should be avoided and is not necessary. The obstetric treatment is purely conservative and non-interference is advised in the ab-

sence of any obstetric indication. Termination adds the strain of operation upon already failing liver.

L. Dopa has been tried in infective hepatitis. Exchange blood transfusion is also of some use. In our series we tried in 2 patients. One patient survived while the other died.

Abortion or premature labour may ensue. In our series of 50 cases, there were 8 maternal deaths and others with complete recovery. But premature labour in 17 and 6 neonatal deaths were there. There was one abortion.

It is generally considered that the baby is not affected. Foetal gonadal changes due to use of corticosteroids in early pregnancy although a possibility is ultimately of no concern in consideration to the gravity of maternal illness. Abortion and premature delivery depends on the stage of maturity at birth and not on the mother's disease.

Babies do not usually show any evidence of jaundice at birth. There is no evidence that a pregnant woman who develops hepatitis A, transmits the infection to her foetus. Unlike the A hepatitis, hepatitis B virus can infect the foetus in utero but it happens rarely. There is substantial evidence that baby could be infected if the disease occurs in the first or second trimester or within 2 months after delivery. Hsia *et al* 1960 believe that the virus is not transmissible across the placental barrier. Reports are there to prove that jaundice produces deafness in the neonates. The suggestion that maternal infection during pregnancy may result in Down's syndrome in the baby has not been substantiated.

Summary and Conclusion

In this series, 50 pregnant mothers complicated by jaundice were analysed. There were 8 deaths among them.

(1) Incidence was found to be more between the age group 20 to 30 and maximum number of deaths, 6 out of 8 occurred in this age group.

(2) Primiparae show higher incidence and bad prognosis.

The incidence of hepatitis in the last trimester of pregnancy is higher. The disease is not directly due to pregnancy but rather to an increased hepatic load which predisposes to infection.

(4) Foetal prognosis is also poor. There were 17 premature labours with 6 neo-natal deaths. This also formed the commonest obstetric complication.

(5) There is also ample evidence that pregnant mother is at risk to jaundice than the non-pregnant and the males.

More careful studies and evaluations should be done to decide the effects of pregnancy on hepatitis and vice versa. Since jaundice is an endemic disease in our country, it is upto the Indian authors to take up these studies seriously.

An interesting observation in this series is that unlike other conditions like hypertension, diabetes, tuberculosis etc., jaundice seems to be less common in older age groups.

References

1. Bhasker Rao, K. and Ganapathy, M. N.: J. Obstet. Gynec. India. 6: 210, 1956.
2. Chritie, A. B., Allan, Aref, M. K., Elnuntasser, I. H. and El-Nagen, M.: Lancet. 2: 827, 1976.
3. Hsia, D. Y., Dowben, R. M., Shaw, R. and Gronman: Nature. 187, 693, 1960. ("Advances in Viral Hepatitis" Technical Report series No. 602, p. 10 and p. 18—World Health Organisation, Geneva 1977).
4. Issac, V. and Chandrasekaran, B.: J. Obstet. Gynec. India. 25: 574, 1975.
5. Sherlock, S.: Disease of Liver and biliary system Blackwell, Oxford, 5th Edition, 570, 1975.
6. World Health Organisation: Tech. Rep. Ser. Wld. Hlth. Org. No. 602, 1977.