Medical Memoranda

Infectious Hepatitis and Stillbirth

Brit. med. j., 1968, 1, 426

Infectious hepatitis is the commonest cause of jaundice during pregnancy, and, as with any form of jaundice, there is an increased chance of abortion or premature delivery. The survival of the baby is generally believed to depend solely on its maturity at birth (Haemmerli, 1966). Evidence for transplacental infection has been meagre and the foetus is not thought to be harmed by the mother's illness.

This paper records two cases, encountered in the past year, of infectious hepatitis occurring in late pregnancy. The maternal illness was not severe, but pregnancy ended with the delivery of fresh stillborn babies.

CASE 1

A healthy 25-year-old woman had had two normal pregnancies; her third ended in a spontaneous abortion at 15 weeks. The fourth pregnancy was uneventful until 33 weeks, when she had slight ankle oedema and a blood pressure of 130/85; there was no proteinuria. Two weeks earlier her daughter had been admitted to the children's ward with infectious hepatitis.

During the 33rd week of pregnancy the patient became unwell and anorexic. She had a mild fever and dark urine. She was admitted to hospital jaundiced a few days later; the minimal signs of toxæmia were unchanged and the foetal heart was heard. Her urine contained an excess of urobilinogen. Other investigations included a serum bilirubin of 3.8 mg./100 ml. (direct 3.0), alkaline phosphatase 35 units, S.G.O.T. 410 i.u./l., lactic dehydrogenase 250 i.u./l., zinc sulphate 3 units, thymol turbidity 6 units, and negative Paul-Bunnell. The diagnosis of infectious hepatitis received further confirmation when her other child developed it two weeks later.

Her illness was mild: the temperature did not rise above 101° F. (38.3° C.) and the bilirubin reached a maximum of 4.6 mg./100 ml. On the night of admission, after a pregnancy of 34 weeks, she went into feeble labour. There was little progress until 48 hours later, when her membranes ruptured. Six hours later a fresh stillborn baby was delivered spontaneously. The foetal heart had been heard until five hours before delivery. A total of 150 mg. of pethidine had been given during labour.

Post-mortem examination by Dr. S. Leibowitz showed a female infant weighing 2,260 g. There was neither jaundice nor oedema. No abnormality was found on detailed examination, and in particular the liver weighing 105 g. was normal, microscopy showing no evidence of infectious hepatitis or other liver disease.

CASE 2

A 36-year-old woman had had one previous pregnancy, resulting in normal delivery of a healthy baby weighing 1,960 g. at 35 weeks. She was a healthy person with no history of jaundice. The only drugs that had been taken during pregnancy were a combination of ferrous gluconate and folic acid. At 32 weeks she lost her appetite and became nauseated. This continued. At 35 weeks she developed vomiting, a sore throat, headache, and some abdominal discomfort. Her blood pressure for the first time was raised at 135/95; there was no other evidence of toxæmia. Amylobarbitone 100 mg. t.d.s. was given and she became drowsy. Three days later she was admitted to hospital jaundiced and with a fever. Her serum bilirubin was 5.4 mg./100 ml. (direct 3.8) and alkaline phosphatase 32.5 units. Subsequent investigations showed the urine to contain bilirubin and excess urobilinogen; the Paul-Bunnell test was negative, S.G.P.T. 280 i.u./l. S.G.O.T. 175 i.u./l.

Amylobarbitone was stopped; she became less drowsy and felt somewhat better. The bilirubin reached a maximum level of 5.9

mg./100 ml. and at no time was her temperature above 101° F. (38.3° C.).

Three days after admission labour began; the foetal heart had been heard regularly up to that time. During labour one injection of pethidine 100 mg. with perphenazine 5 mg. was given. After two hours a stillborn baby was born spontaneously; the foetal heart had not been heard during the previous hour. The mother's recovery from the illness continued.

Post-mortem examination showed a male infant weighing 1,360 g. The liver and other organs appeared normal.

COMMENT

These two examples of jaundice in late pregnancy had a similar outcome. Case 1 undoubtedly had viral hepatitis. In Case 2 there was no epidemiological evidence, and, though infectious hepatitis is probable, cholestatic jaundice of late pregnancy may have been the cause. Neither patient was very ill, yet their babies died during uneventful labour.

Reports of this occurrence are difficult to find in the literature. Roth (1953) mentions that of six mothers who had infectious hepatitis in the third trimester one had a baby with erythroblastosis and the baby of another was stillborn. Ingerslev and Teilum (1951-2) attribute two intrauterine deaths to "jaundice." Haemmerli (1966) states that infectious hepatitis and intrahepatic cholestasis of pregnancy are benign to the child. However, in his series of cases of recurrent intrahepatic jaundice, of 20 babies born after 36 weeks 6 are said to have died of "intrauterine asphyxia" during labour.

The cause of intrauterine death in the two cases reported is open to speculation. Any severe maternal illness associated, for instance, with high fever or toxæmia may result in foetal death. Neither mother had severe illness, nor did their babies die at the time of maximum illness in the mothers as judged by fever, jaundice, or symptoms. Direct infection of the foetus can be suggested, but post-mortem examination of each baby produced nothing to substantiate it. Maternal hepatic insufficiency could affect the baby in two ways: firstly, by failure to nourish, and, secondly, by failure to detoxicate. On the first count baby 1 appeared to be a well-nourished infant who was not small for dates; baby 2 was small (1,360 g. at 35 weeks' gestation). However, in both cases death occurred during labour, and it was during labour that drugs were given to the mother. The doses were moderate, but they may have been too great for a person with liver dysfunction.

With regard to these two cases, two recommendations can be made. Firstly, when a pregnant mother has been in contact with infectious hepatitis, however advanced her pregnancy may be, there is a case for giving prophylactic gammaglobulin. Secondly, when a woman with infectious hepatitis or other jaundice goes into labour the baby is vulnerable and the customary analgesics should be omitted or drastically reduced.

I am grateful to Mr. J. B. Blaikley for permission to publish details of his patient.

S. R. MEADOW, M.A., M.R.C.P., D.C.H.

Department of Paediatrics,
Guy's Hospital, London S.E.1.

REFERENCES

- Haemmerli, U. P. (1966). *Acta med. scand.*, Suppl. No. 444.
- Ingerslev, M., and Teilum, G. (1951-2). *Acta obstet. gynec. scand.*, **31**, 74.
- Roth, L. G. (1953). *Amer. J. med. Sci.*, **225**, 139.