

ABO INCOMPATIBILITY-EXCHANGE TRANSFUSION

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Introduction

This case is reported as this happened to be the first case of ABO incompatibility which occurred at Paropakar Shri 5 Indra Rajya Luxmi Devi Maternity Home, Kathmandu. There have been 3 previous cases of Rh incompatibility but as these were relatively mild and serum bilirubin did not rise appreciably, no exchange transfusion was needed.

Case Report

Baby L was the first born child of a girl of 18 years; husband was 25 years old-married for one year. The baby born on 1st Jestha, 2026, was 10 days overdue from the expected date of delivery. The female child weighing 7lbs 2 ozs was born following a normal delivery. Condition at birth was satisfactory. No jaundice was present. Child sucked well, cried well and fed well.

It was only on the second day that the child was noted to be jaundiced. Though the child was well the jaundice continued to increase on the third day. On the fourth day there was a rise of temperature to 102°F and the child did not take breast feeds well. The child was irritable. Examination revealed jaundice of a marked golden yellow colour. Fontanelle not raised, no liver enlargement, no umbilical sepsis. Examination of blood at that time was as follows:-

Baby's Blood Group A Rh — ve.

Mother Group O Rh — ve.

Coomb's Test — ve.

Hb 65%

Wbc. TC 14,000 DC Poly-73%, Lymphos 26% Metamyelocytes 1%

In view of the high total count and the temperature, the baby was put on penicillin parentally and a combination of tetracycline and oleandomycin orally.

On the 5th day the child's condition worsened and an arrangement for immediate exchange transfusion was made. Examination of blood prior to exchange revealed a serum bilirubin of the order of 18mg/100ml blood.

Exchange transfusion was done with fresh blood of Group O Rh — ve under antibiotic cover. A total of 300ccs only was exchanged over a two hour period. After each 100ccs of blood exchanged, the child was given 1ml of 10% Calcium Gluconate. Oxygen was given at times during the course of the exchange.

The following day i.e. the 6th day of birth the child's temperature suddenly rose up to 105° F. This was immediately brought down by antipyretics and the child was given streptomycin in addition to the penicillin which it was already receiving. The seventh day the child's condition worsened, he now had fine crepitations on the right side of his chest. Antibiotics and oxygen were given but on the 8th day at 1.00 AM the child suddenly died probably as a result of his chest infection.

Discussion

It is only a proportion of the country's mothers who have their babies in hospital and what we see and write about only holds good for that small percentage. As mentioned already there have been three other cases of Rh incompatibility at the Maternity home. It is only in recent years that a Blood Transfusion Service is functioning in Kathmandu and hence one would not expect sensitisation to the Rh factor to occur as a result of previous blood transfusion in women of child bearing age. Consequently we do not expect at any time to see Rh sensitisation as a result of previous transfusion. Whether this is borne out in practice or not remains to be seen.

As far as ABO incompatibility is concerned it is comparatively mild and is a fairly rare occurrence but some writers have put the incidence as high as:—

- 1 in 140 births Hsia & Gellis (1954)
- 1 in 70 births... .. Valentine (1958)
- 1 in 1500 to 2000 birth in the U.K. by Mollison (1961) and Tovey et al (1962)

As far as Nepal is concerned a great deal of work and investigation of jaundiced children at Maternity Homes has to be done before any figures can be given.

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Reference

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