Non Immune Hydrops Foetalis in Pregnancy Induced Hypertension

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Abstract

Though incidence of Rh alloimmunisation is decreasing because of use of Anti D and less number of conceptions per couple, yet incidence of hydrops foetalis in pregnancy is not decreasing because of increasing incidence of NIHF. If adequate attention is paid towards causative factors of NIHF and if incidence of preeclampsia-eclampsia is controlled, in future we will see less babies with NIHF.

Introduction

Since the successful control of Rh alloimmunization, it is found that Non immune hydrops foetalis (NIHF) constitutes 75% of all cases of hydrops seen in developed countries. The incidence of NIHF described by different authors ranges from 1 in 1500 to 1 in 4000 pregnancies. Our hospital is a referral centre for high risk pregnancies and over a period of 1½ years (February 2004 to July 2005), we found three cases of NIHF associated with severe pre-eclampsia.

Case Reports

Case 1

A 23 year old primigravida married since 2 years with 34.4 wks of gestation by dates and 31.5 wks by first ultrasound done at 27 wks,was admitted in ANC for IUGR with severe preeclampsia on 29/3/04. On admission patient's blood pressure was 150/120 mmHg. Ultrasound showed the average gestational age of patient 28.2 wks with nil liquor with foetal pleural effusion, ascites, cardiomegaly and hydrops. Colour doppler done on the same day showed middle cerebral artery vasodilatation and umbilical artery diastolic flow reversal. Non stress test showed poor beat to beat variability and several spontaneous decelerations. All maternal investigations were within normal limits except S.uric acid 7.7 mg% and urine albumin 3+. Emergency LSCS was done, a female baby of 1.2 kg was born and shifted to NICU in view of fetal hydrops foetalis. Baby expired on 3/4/04 due to cardiorespiratory arrest (Figs. 1, 2).

Case 2

A 26 year old primigravida married since one year, came with gestational age of 27 wks by dates and 26 wks by first ultrasound done at 12 wks of gestation, admitted in ANC on 4/5/04 in view of severe PIH. Patient was diagnosed to have severe preeclampsia and started on T. Aldomet (500 mg) TDS and C. Depin (5 mg) TDS from 30/4/04. Blood pressure on admission was 150/90 mmHg. All other investigations of mother were within normal limits except Sr. uric and 7 mg% and urine albumin 4+. Ultrasonography done on 4/5/04 showed nil liquor with symmetrical IUGR. Foetus had hydrops, ascites and pleural effusion. Expected gestational age was 21.5 wks with expected foetal weight of 640 gms and placenta showed grade III calcifications. The decision of termination of pregnancy with T. Misoprostol was taken on 7/5/04. A still born female foetus of 750 gm was delivered .

Case 3

A 23 years old primigravida married since 1 year with 34 wks of gestation by dates and 33.4 wks of gestation by ultrasound (done at 12 wks) was admitted in ANC in view of IUGR with chronic hypertension with superimposed PIH on 5/6/05 . Blood pressure on admission was 180/120 mm Hg. Patient was started on T. Aldomet (500 mg) QID and C. Depin (10 mg) QID. Throughout pregnancy, blood pressure was around 130/90 mmHg. All investigations were within

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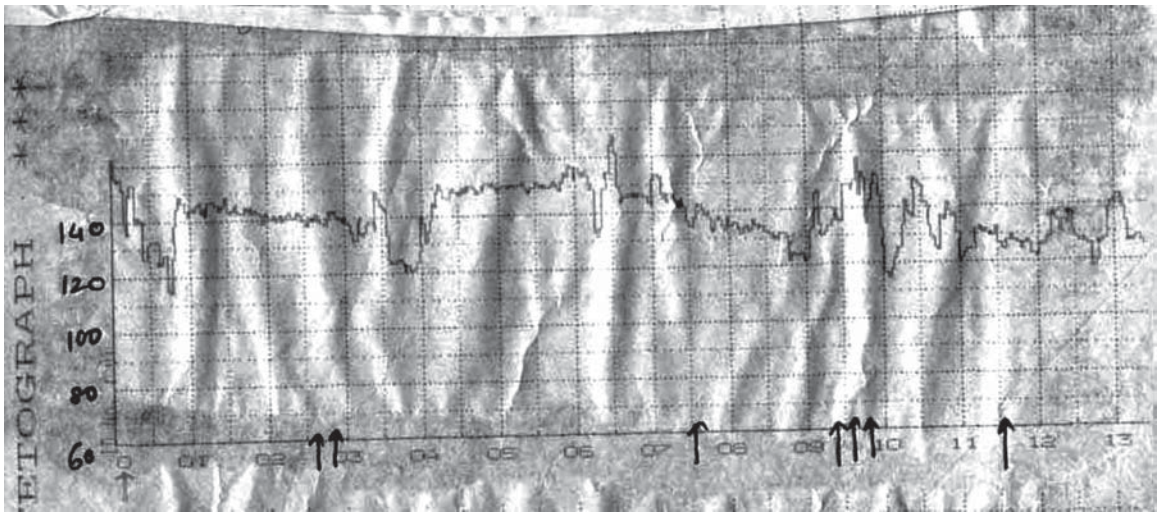

Fig. 1 : Non stress test poor beat to beat variability

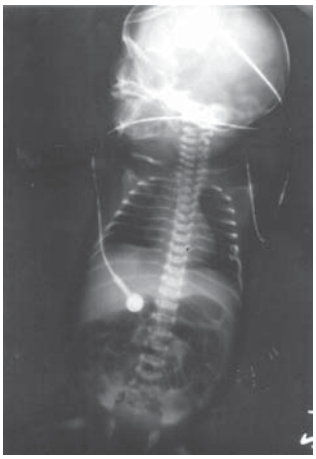

Fig. 2 : X-ray showing hydrops changes in baby after birth

normal limits. Ultrasound examination done at 28 wks and 32 wks were showing asymmetrical IUGR with lag in growth by two wks and 3 wks respectively. USG done on 5/6/05 showed average gestational age of foetus 29.3 wks with an expected foetal weight of 1.1 kg. Foetus showed cardiomegaly, ascites. pleural effusion and hydrops. Colour doppler done on same day showed umbilical artery diastolic flow reversal, middle cerebral artery vasodilatation. Patient had IUFD on the same day. Female baby of 1.1 kg was delivered after cerviprime induction (Figs. 3, 4).

Discussion

Important causes of NIHF are cardiovascular (20%), idiopathic (15.20%), chromosomal abnormalities (10-15%), twin to twin transfusion syndrome, intrauterine

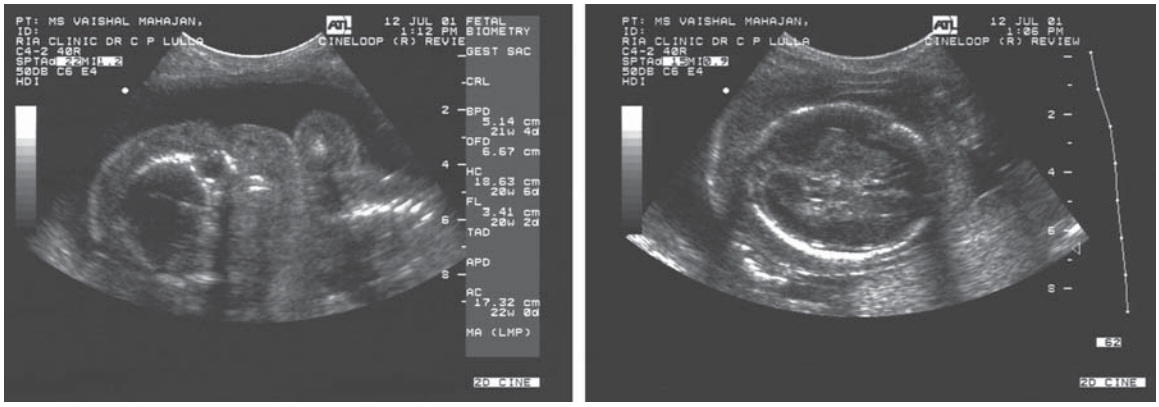

Fig. 3 : Ultrasonography showing hydrops changes in foetus

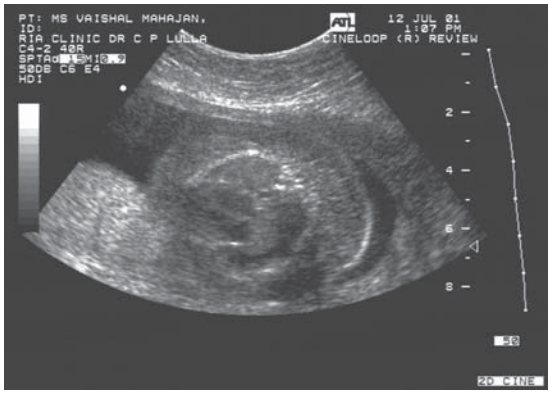

Fig. 4 : Ultrasonography-pleural effusion

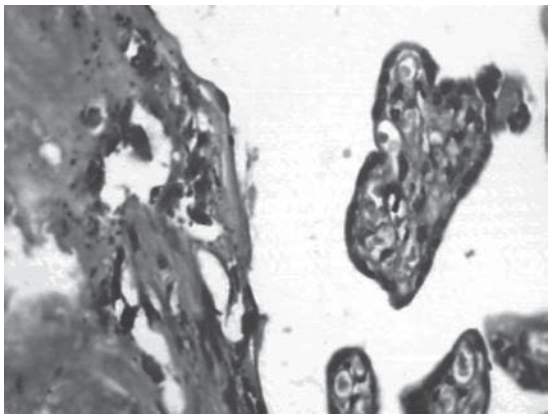

Fig. 5 : Histopathology Placental calcification

infection (Parvovirus B19 infection). Due to difficulty in laboratory diagnosis many parvovirus infection may go unnoticed and are classified under idiopathic NIHF. The most common maternal complication of NIHF are polyhydramnios and preeclampsia contrary to this, in our 3 cases, liquor was

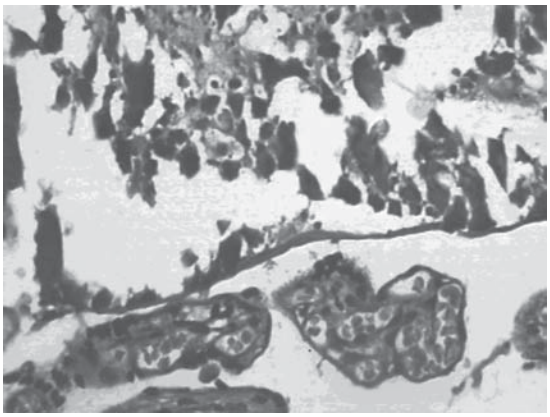

Fig. 6 : Histopathology-Placental infarction

grossly reduced or absent. USG done early in gestation in our cases had shown no evidence of hydrops, which developed after the severe preeclampsia was diagnosed. None of the three cases found to have other factors however Karyotyping and parvovirus infection diagnosis was not possible in our study. Placental histopathology showed infarcts and calcifications,contrary to hydropic degeneration of trophoblasts

The available findings suggests that preeclampsia was not the sequel of NIHF, and may have been a causative factor. This association needs to be evaluated further (Figs. 5,6).

Conclusion

The available findings in the three cases presented suggest that pre-eclampsia was not the sequel of NIHF and may have to be a causative factor.

ACUTE LOW BACK PAIN

Guidelines for treatment of acute low back pain recommend giving advice and paracetamol, followed by non-steroidal anti-inflammatory drugs and spinal manipulative therapy for patients who have slow recoveries.

Neither diclofenac nor spinal manipulative therapy appreciably reduced the number of days until recovery.

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