Case Report

SPONTANEOUS RESOLUTION OF NON-IMMUNE HYDROPS FETALIS

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ABSTRACT

A case report of hydrops fetalis characterized by ascites and scalp edema of unknown etiology is described. The hydrops developed at 24 weeks and resolved completely without treatment resulting in a live born infant at term.

KEY WORDS: Hydrops Fetalis.

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INTRODUCTION

Hydrops fetalis is a serious fetal condition defined as the presence of excess fluid in more than one body compartment. The fluid should present in any of the following two cavities to be diagnose hydrops fetalis e.g. subcutaneous tissues, lung, abdominal cavity and pericardial cavity.[1] The incidence of hydrops is difficult to ascertain as most of the fetuses die early in pregnancy. However in USA its incidence is approximately one in 600 to one in 4000.[1] In Southeast Asia it is more common and its incidence varies from one in 500 to one in 1500.[2] It may be of two types immune due to maternal hemolytic disease or non immune due to any other cause. With the use of Anti D prophylaxis immunological causes account for less than 20% cases.[1] More common are non immune causes of hydrops fetalis.

There are more than 80% conditions associated with it such as chromosomal abnormality, structural cardiovascular disease, cardiac rhythm disorders, chest anomaly, hematological disease and infection.[3] As hydrops fetalis has poor prognosis most of the obstetrician consider termination of pregnancy. The prognosis is even poorer if hydrops fetalis is diagnosed in first half of pregnancy.[3] This report describes a case of severe hydrops fetalis unknown etiology diagnosed at 24 week of gestation with complete resolution in third trimester without intrauterine treatment and with uncompleted neonatal outcome.

CASE REPORT

A 22 year old woman Para 1+0 last delivery by Caesarean section due to non progress of labour came for booking at 12 weeks gestation. Routine ultrasound scan at that time was normal. A repeat scan at 24 weeks gestation showed gross ascites and scalp edema, bilateral pleural effusion and ventricular dilatation. There was no pericardial effusion. Fetal biometry was consistent with the menstrual dates and fetal heart rate and rhythm was normal.

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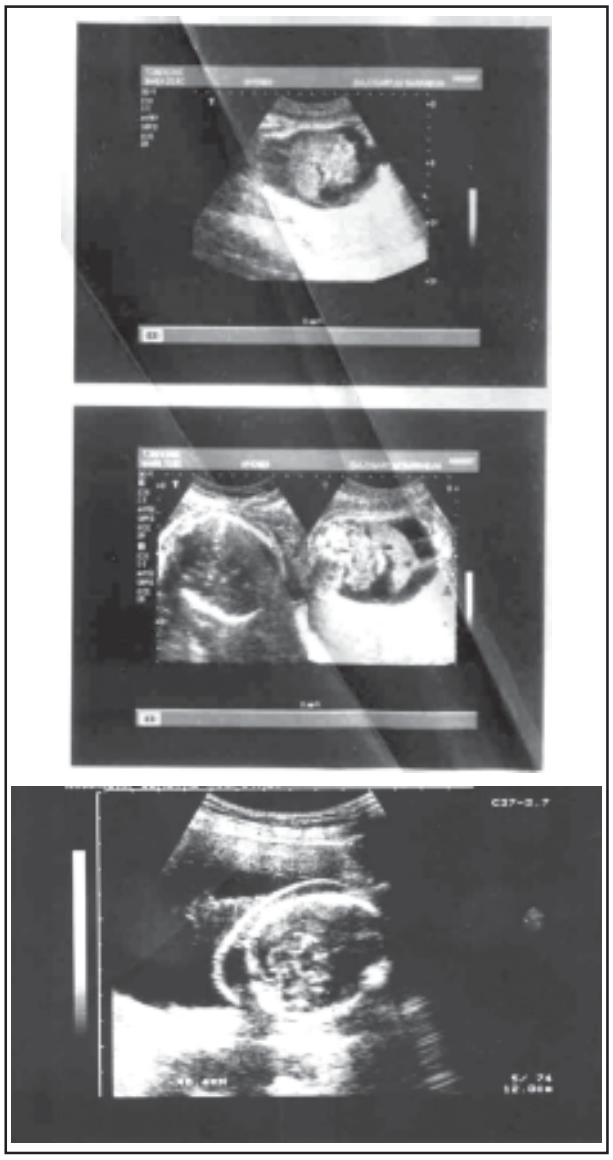

Fig-1: Scan showing scalp edema

A detailed fetal examination was performed. Growth parameter showed an abnormally enlarged abdomen. No other fetal abnormality was seen. The placenta was anterior and normal in size. The maternal blood group was "B" positive.

A viral screening had revealed no evidence of recent maternal infection with toxoplasmosis, rubella, cytomegalovirus or herpes simplex. IgG & an IgM level for human parvovirus was also normal. All other investigations were normal. At 34 weeks a further ultrasound measurement was undertaken. The fetal ascites and

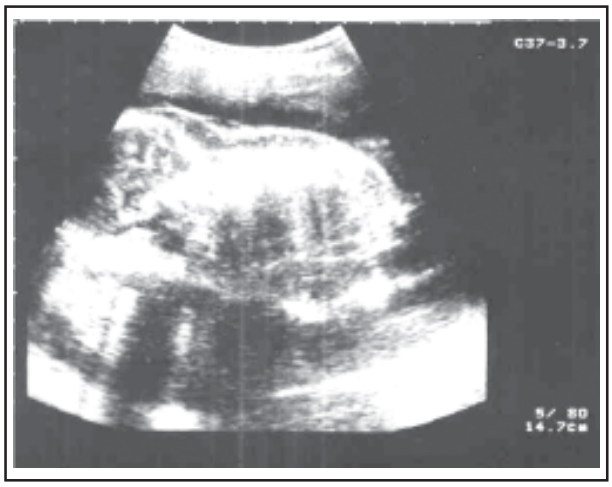

Fig-2: Scan showing fetal ascites

scalp edema and pleural effusion resolved completely. A further scan at 36 weeks revealed a completely normal looking fetus. Due to her previous Caesarean section we waited for spontaneous labour which started at 39 weeks and patient delivered an alive normal male child weighing 3.2kg spontaneously with good Apgar score.

DISCUSSION

In general Non Immune Hydrops Fetalis is regarded to have poor prognosis and usually termination of pregnancy is advised.[4] Non immune hydrops can occur at any time during pregnancy. There is no standard treatment. People are treating non immune Hydrops Fetalis with intrauterine transfusion in case of human parvovirus infection, shunting or open surgery in case of extra lobular lung sequestration associated with fetal hydrops and maternal digitalization.[1] In our case as the etiology was unknown, no intervention was carried out. Very few cases of complete resolution of hydrops fetalis of unknown etiology are described in literature. Henrich[1] described complete resolution of severe non-immune Hydrops fetalis in second trimester. Swin et al,[5] described survival of two cases of hydrops of idiopathic etiology. Spontaneous resolution of non-immune hydrops resulting from parvovirus infection has been reported by numerous investigators and John Rodie[6]

describes spontaneous resolution of 34% of non-immune hydrops resulting from parvovirus B19. Boris M[7] also described the cases of spontaneous resolution of Hydrops fetalis from parvovirus. Similarly Teresa et al[8] has described spontaneous resolution of hydrops fetalis, secondary to parvovirus infection presented early in pregnancy. P.S Bhal[9] presented a case of spontaneous resolution of non immune hydrops fetalis secondary to .transplacental pavovirus B19 infection. This case together with other reports would suggest that hydrops is not a preterminal event and may resolve spontaneously particularly if there are no signs of associated congenital malformations, chromosomal aberrations, intrauterine infections or trauma are observed.[1] As such one could say that a hydrops showing signs of resolution can be managed conservatively.

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