

## TWIN NON-IMMUNE HYDROPS FETALIS (NIHF).

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### ABSTRACT

Non-Immune hydrops fetalis (NIHF) is a clinical entity that affects non-Rh-sensitized pregnancies and is characterized by fetal anasarca, placental edema, and often fetal serious effusions. It was first described in 1943 by E.L. Potter.<sup>1</sup> Recently we diagnosed NIHF in a twin and reporting it as a rare case.

**Indexing Words:** Twin pregnancy, Hydrops fetalis.

### CASE REPORT

A muslim multiparous female of 31 yrs. gravida 3<sup>rd</sup>, came with a history of 7 months' amenorrhea complaining of ankle edema and unusual fundal height. Ultrasonographic examination (Concept 2000 U.K.) was performed and showed a twin pregnancy of about 28 wks. One fetal head was high up on right side, the other was lying low on left side. Biparietal diameter (BPD) was 67.1mm., femur length (FL) was 46 mm., both corresponding to a about 28 wks. of gestation. Both fetal hearts were beating regularly at 147 per minute, Abnormal fluid collections were noted in fetal scalp, pericardial and peritoneal spaces (Fig. 1). She had two sons of ages 8 and 6 years, both were delivered normally at home and both are having normal health. Therefore we label the case non-immune hydrops fetalis (NIHF). Unfortunately the patient was lost to followup.



**Fig. 1** Ultrasonography of the case of non-immune hydrops fetalis.

### DISCUSSION

In 1943, non-immune hydrops fetalis represented less than 20% of all cases of hydrops fetalis, however, since the advent of effective prophylaxis against Rh(D) sensitization, the relative frequency of non-immune hydrops fetalis has risen to 90%.<sup>2</sup> The incidence of non-immune hydrops fetalis ranges from one in 14,000 to one in 7000.<sup>3-5</sup> The mortality rate for non-immune hydrops fetalis ranges from 50-98%.<sup>3-6</sup> The complications of NIHF are tabulated below (Table 1).

**Table 1.** Complications of NIHF

Complications	Frequency
Polyhydramnios	50-75 %
Pregnancy-induced hypertension	15-46 %
Maternal anemia	7-45 %
Maternal hypoalbuminemia	6-67 %
Fetal arrhythmia	15 %

In 1963, Liley pioneered the intrauterine transfusion for the treatment of severe red cell alloimmunization. In 1985, Daffos described the presently used method of ultrasound-guided percutaneous umbilical cord blood sampling and intravascular transfusion. In 1991, Anandkumar et al claimed 85% success rate in cases of non-immune hydrops fetalis by administering digoxin 25 picomicrogram and furosemide 0.5 mg per kg daily for 10 days.<sup>7</sup>

A case of NIHF caused by severe fetal aortic stenosis and endocardial fibroelastosis was treated successfully by transplacental digitalization (oral loading dose of 0.8 mg digoxin to the mother three times at 8-h intervals for 2 weeks and therapeutic levels 2 mg/ml were maintained by oral digoxin therapy).<sup>8-10</sup> As our case was lost to follow-up we could not try any therapy.

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