

Pregnancy with Hydrops Fetalis and Cystic Hygroma: A Case Study

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Hydrops foetalis is a well-recognised foetal and neonatal condition, with high incidence in developing countries while a cystic hygroma (or cystic lymphangioma) is a congenital multiloculated lymphatic lesion that can arise anywhere though usually found in the left posterior triangle of the neck and armpits. A case study of a young lady is discussed after brief introduction of the two conditions of hydrops foetalis and cystic hygroma.

Hydrops Foetalis

Hydrops foetalis (or foetal hydrops) is a serious foetal condition defined as abnormal accumulation of fluid in two or more foetal compartments, including ascites, pleural effusion, pericardial effusion, and skin oedema. More often it is present in foetus with ascites & skin oedema.

In some patients, it may also be associated with polyhydramnios and placental oedema. Hydrops is usually first detected by ultrasound examination during the first or second trimester of gestation.

Causes: There are two types of hydrops foetalis - immune and non-immune. the type depends on the cause of the abnormal fluid.

Immune hydrops foetalis is a complication of a severe form of Rh incompatibility. This is a condition in which mother who has Rh negative blood type makes antibodies to her baby's Rh positive blood cells, and the antibodies cross the placenta. Rh incompatibility causes a large number of red blood cells in the foetus to be destroyed. This leads to problems including total body swelling. Severe swelling can interfere with how the body organs work. Change in skin colour is a common manifestation.

Non-immune hydrops foetalis presents with genetic problem. It occurs when a disease or medical condition upsets the body's ability to manage fluid. There are three main causes for this type: heart or lung problems, severe anaemia (e.g. due to thalassemia

or infections), and genetic or developmental problems, including Turner syndrome.

Symptoms: Symptoms depend on the severity of the condition. Mild forms may cause swelling in liver and change in skin color (pallor). More severe forms may cause breathing problems after birth, bruising or purplish bruise-like spots on the skin, heart failure, severe anaemia, severe jaundice and total body swelling.

Tests: An ultrasound done during pregnancy may show high amounts of amniotic fluid, abnormally large placenta and fluid that leads to swelling in the unborn baby's belly area and organs, including the liver, spleen, heart, or lung area.

Treatment: Treatment depends on the cause. During pregnancy, treatment may include:

- Medicine to cause early labor and delivery of the baby
- Early Caesarean delivery if condition gets worse
- Giving blood to the baby while still in the womb (intrauterine foetal blood transfusion).

Cystic Hygroma

A cystic hygroma is a growth that often occurs in the head and neck area. It is a birth defect.

Causes: A cystic hygroma occurs as the baby grows in the womb. It forms from pieces of material that carry fluid and white blood cells. This material is called embryonic lymphatic tissue.

After birth, a cystic hygroma usually looks like a soft bulge under the skin. The cyst may not be found at birth. It typically grows as the child grows. Sometimes it is not noticed until the child is older.

Symptoms: A common symptom is a neck growth. It may be found at birth, or discovered later in an infant after an upper respiratory tract infection (like a cold).

Case study on Pregnancy with Hydrops Foetalis & Cystic Hygroma

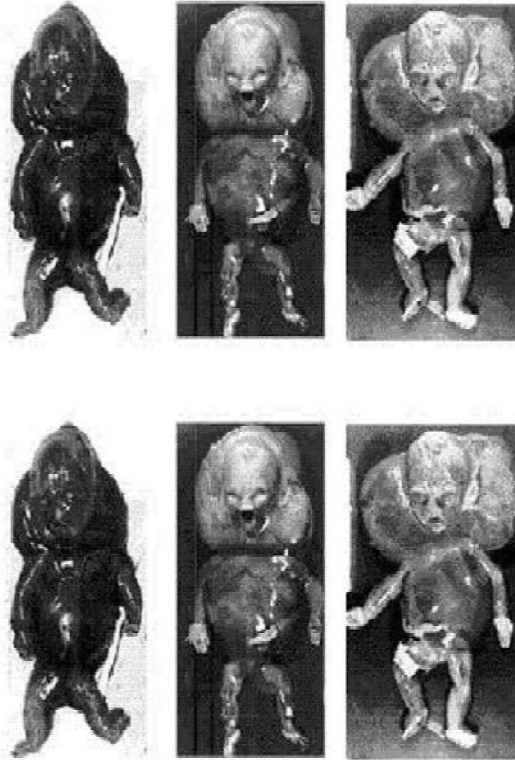
Jennifer, 26 years old lady married for two years was admitted to CMC & Hospital, Ludhiana (Punjab) on

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Fig 1: An ultrasound view of hydrops foetalis



Fig 2: Neck growth, a feature of cystic hygroma



14 January 2015. She was suffering from primary infertility and she had conceived with medications that promote ovulation induction. From the conception all the events were normal but when patient went to hospital for second level ultrasound scan, it was diagnosed that foetus was suffering from hydrops foetalis and cystic hygroma. The second level scan is usually done from 16 to 20 weeks of pregnancy to rule out congenital defects. Patient's pregnancy was 18 weeks at the time of second level ultrasonography. Then, patient was admitted for termination of pregnancy. It was non-immune hydrops foetalis. At admission, the investigations undertaken and the treatment given are shown in Tables 1 and 2.

Nursing Diagnosis

1. Pain and discomfort due to induced uterine contractions as evidenced by observation and

Table 1: Investigations at the time of admission

S.No.	Name of investigation	Patient's value	Normal value	Remarks
1	Haemoglobin	10 gm	12.14gm	Mild anaemic
2	TLC	18,900/ μ l	4,000-10,000/ μ l	Leukocytosis
3	Platelets	2.05x10 ³ / μ l	1,50,000 - 3,00,000/ μ l	Normal
4	PCV	36.6%	30-60%	Normal
5	MCV	80.3fl	80-100fl	Normal
6	RBC	3.98x10 ⁶ / μ l	4-6x10 ⁶ / μ l	Normal
7	Neutrophils	85%	70%	Neutrophilia (or neutrophil leukocytosis)
8	Lymphocytes	15%	20-40%	Normal

Table 2: Medications used for treatment

S.No.	Medicine (drug)	Dose	Frequency	Route	Action
1	Tab Cefguard	1.5 gm	BD	PO	Antibiotic
2	Tab Folic acid	5 mg	OD	PO	-
3	Tab Pantop	40 mg	OD	PO	H ₂ receptor blocker
4	Tab Thyronorm	150 ug	OD	PO	Thyroid supplement
5	Tab Misoprostol	800ug	OD	Transvaginal	Prostaglandin E ₁
6	Tab Calgrow	-	OD	PO	Calcium supplements
7	Inj Phenergan	50 mg	Stat	IV	Sedative

verbalisation.

2. Anxiety due to outcomes of pregnancy evidenced by patient's look.
3. Self-care deficit related to discomfort and restricted activities as evidenced by verbalisation.
4. Risk of infection related to bleeding.

Nursing Management

Pain was reduced by analgesics and diversional therapy.

Patient was assisted in performing self care.

Risk of infection was reduced by application of aseptic techniques.

Psychological support was given to patient for the loss of baby and her doubts were cleared regarding disease condition.

Patient was encouraged for chromosomal testing of foetus to rule out genetic defects and convinced for follow-up treatment.

References

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