

CASE REPORT

CYSTIC HYGROMA-AN UNUSUAL CAUSE OF INDUCED ABORTION

Umar Amin, Asad Khan*,Trariq Ghafoor**

Head of Radiology Department, CMH, Bahawalpur, *Radiologist, CMH Khuzdar, **Child Specialist CMH, Bahawalpur.

A male infant was diagnosed prenatally at 20 weeks of gestation with posterior cervical cystic hygroma. The mother was a 31-year-old gravida, who had an otherwise normal systemic examination. A therapeutic abortion was arranged and fetus was aborted. Sonographic findings were confirmed on examination of aborted fetus

Keywords: Ultrasound, Cystic, Septum

INTRODUCTION

Cystic hygroma is anomaly of the lymphatic system characterized by single or multiple cysts within soft tissues, usually involving the neck¹. Prenatal ultrasound helps in the diagnosis of cystic hygroma and differentiates it from occipito-cervical meningocele². It also allows the collection of amniotic fluid for chromosomal and biochemical study. The present report substantiates the concept of Jugular lymphatic - obstruction sequence.

CASE REPORT

The 32 years old patient was referred to radiology dept for ultrasound of fetal well being at approximately 19 weeks gestational age. A cystic structure was located extending posterolaterally on both sides of fetal head and neck. A thick septum was dividing this fluid filled structure. The septum was attached posteriorly at the site of ligamentum nuchae (Fig 1). No other congenital anomaly was seen sonographically in the fetus. The fetus was diagnosed to be having cystic hygroma and patient was admitted and therapeutic abortion was arranged and fetus was aborted. Examination of aborted fetus revealed a cystic structure extending posterolaterally along the neck (Fig 2) with a thick septum dividing the cystic cavity thus confirming sonographic diagnosis of cystic hygroma. This is the first such case reported in Pakistan.

DISCUSSION

Cystic hygroma is multiloculated cystic structure that is benign in nature. It may occur anywhere in the body, although it is most frequently encountered in the neck. Cystic hygroma frequently abut neurovascular structures. Lymphatic channels are formed around the sixth week of gestation. From these channels, sacs are formed that establish drainage with the venous system. Failure to establish venous drainage results in dilated disorganized lymph channels, which, in the largest form, present as cystic hygroma³. In the embryo, the lymphatic system drains into the jugular lymphatic sacs.

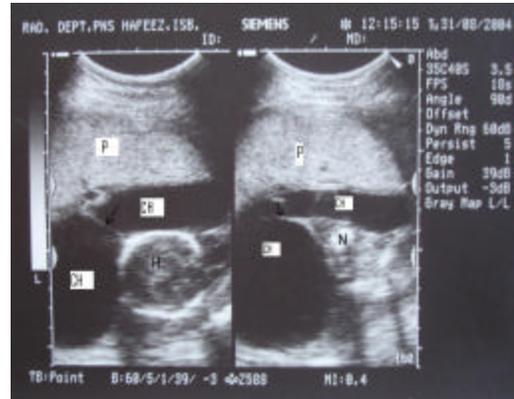


Figure 1. Sonogram shows a posterior cystic hygroma (CH) behind the fetal head(F) and neck (N) Note the internal septum (arrow) dividing cystic hygroma in midline in both images. Placenta (P)

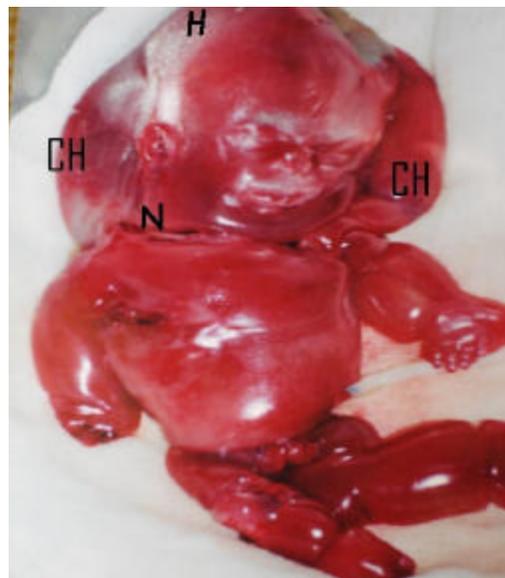


Figure 2. Gross Specimen of aborted fetus shows cystic hygroma (CH) seen projecting bilaterally around neck(N). Fetal head (H)

A communication between this primitive structure and the jugular vein is formed at 40 days of gestation. Failure of development of this communication results

in lymphatic stasis. Dilatation of the jugular lymphatic sac leads to the formation of cystic structures in the cervical region. If a connection between the lymphatic and the venous system does not occur at this point, a progressive peripheral lymphoedema and hydrops develops, leading to early intrauterine death⁴. Cystic hygroma has a strong association with Turner's syndrome. Ultrasound should be done cautiously to avoid confusing cystic hygroma with pockets of amniotic fluid around head and neck⁵. Once fetal cystic hygroma is diagnosed, all efforts should be aimed at identifying the associated anomalies and following up the patient to assess the development of fetal hydrops. Genetic counseling is necessary to discuss the diagnosis, other diagnostic possibilities, the possible need for karyotyping, and the potential risks to the fetus or child. The patient's family should be appropriately

counseled regarding the risks in subsequent pregnancies.

REFERENCES

1. Jenderny J, Schmidt W, Hecher K, Hackeloer BJ, Kerber S, Kochhan L et al. Increased nuchal translucency, hydrops fetalis or hygroma colli. A new test strategy for early fetal aneuploidy detection. *Fetal Diagn Ther*. 2001;16(4):211-4.
2. Estroff JA. Nuchal translucency in Turner syndrome. In: Cohen HL, Sivit CJ, eds. *Fetal & Pediatric Ultrasound*. Columbus, OH: McGraw-Hill 2001; 36-8.
3. Cohen HL: Ascites and pleural effusion in hydrops. In: Cohen HL, Sivit CJ, eds. *Fetal & Pediatric Ultrasound*. Columbus, OH: McGraw-Hill 2001; 79-82.
4. Charasson T, Ko-Kivok-Yun P, Martin F, Sarramon MF. Screening for trisomy 21 by measuring nuchal translucency during the first trimester of pregnancy. *J Gynecol Obstet Biol Reprod (Paris)* 1997; 26(7): 671-8
5. Bronshtein M, Bar-Hava I, Blumenfeld I, Bejar J, Toder V, Blumenfeld Z. The difference between septated and nonseptated nuchal cystic hygroma in the early second trimester. *Obstet Gynecol* 1993; 81(5(Pt 1)): 683-7.

Address for Correspondence: Dr Umar Amin, Classified Radiologist, Head of the Radiology department, Combined Military Hospital, Bahawalpur. Phone: 062-8916128, 0300-5353522.
Email:umar1971@hotmail.com