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Case Report

Cystic Hygroma: A Case Report in a Newborn

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Received: November 04, 2022; **Published:** December 16, 2022

Abstract

Cystic hygroma (CH) is a macrocystic lymphangiomas that occur mainly in the neck.

A newborn with CH was detected during pregnancy and confirmed at delivery.

The CH was in the neck. After surgery, the sac was totally removed.

Our case was not associated with chromosomal or non-chromosomal disorders.

Keywords: *Cystic Hygroma; Newborn; Surgery*

Background

Cystic hygroma (CH) is not more than a macrocystic lymphangiomas that occur in the neck.

CH arise by sequestration of lymphatic tissue from lymphatic sacs during development and failure of these tissues to communicate with the lymphatic or venous system.

The incidence of CH is 1 per 6000 - 16,000 live births.

The gender distribution is the same.

Most cases (50 - 65%) are evident at birth.

CH can be visualized with abdominal ultrasonography (US) by 10 weeks of gestational age.

Elevated alpha fetoprotein levels in amniocentesis fluid have been reported.

A study by Lejeunesse., *et al*. involving 69 fetuses with CH diagnosed in the first trimester suggested that the following were predictors of a poor outcome: nuchal thickness greater than 6.0 - 6.5 mm and presence of hydrops fetalis, abnormalities on US, or both.

Case Report

A male newborn with 39 weeks of gestational age was born by cesarean section. BW: 4800g. Apgar 9/10/10.

At delivery was found a large tumefaction on the right neck that was soft and at palpation seems like a sac full of liquid. The examination showed a highly suspect case of CH (Figure 1).

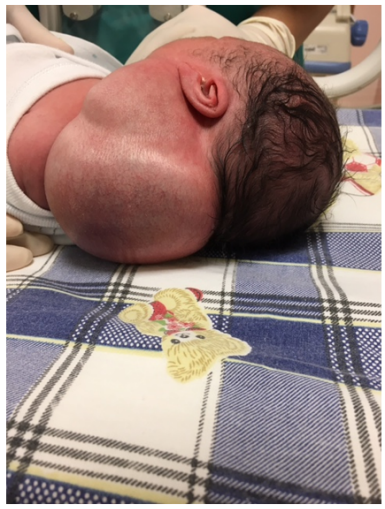

Figure 1: *Neck cystic hygroma.*

During the antenatal period at 14 weeks of gestational age, the ultrasound found this neck tumefaction and at that moment, CH was the probably diagnosis.

After birth the neck ultrasound confirmed the diagnosis of CH (Figure 2 and 3).

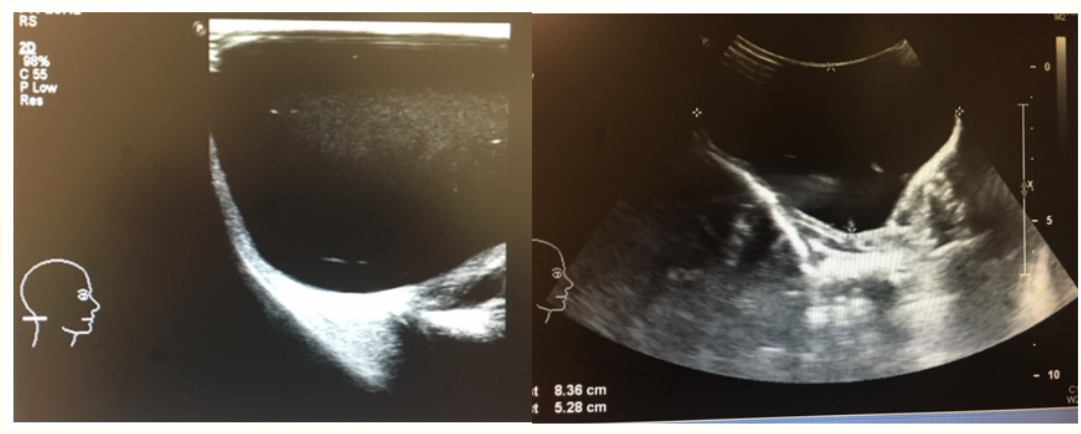

Figure 2 and 3: *Neck ultrasound showing a large cystic hygroma.*

The patient was under surgery for remove of the large CH and the weight of the sac was 1300g. The surgery was successful with total removing of the cyst.

Because of the association of CH with chromosomes and non- chromosomal disorders, microarray test and molecular study of Noonam diseases was performed.

Both results were normal.

Discussion

CH can appear at any part of the body.

In 80% of the cases, the location is cervico-facial region.

The rest 15% are found in the axilla and the remaining 5% are found in the mediastinum, retroperitoneum, abdominal viscera, groin, bones and scrotum.

The CH is transluminant.

CH is associated with some syndromes: Turner, Down, Klinefelter, trisomy 18, trisomy 13 and Noonan.

Our index case was not associated with any of these syndromes.

Respiratory distress, recurrent infections or cosmetic reasons are the main indications of the treatment.

The ideal treatment is complete surgical excision but there are others options: sclerosant agents, simple drainage, aspirations, radiation, laser excision, radio-frequency ablation and cauterization.

Sclerotherapy with intra-lesional bleomycin, has been tried.

In 60% of cases showed complete resolution and in 30% the size reduced significantly. Bleomycin is a chemotherapy and can have side effect.

OK432, has more satisfactory results and less complications as compared to bleomycin.

Laser and the others options can be use in selective cases.

In our case the option was surgery without any previous treatment with sclerotherapy or aspiration.

The result was excellent after one year with no relapse [1-9].

Conclusion

Cystic hygroma is a benign situation and optimum treatment can be given by surgery alone, sclerotherapy alone or combined use of both. Laser and radiofrequency can also be used in selected patients.

It's important to do an array test and molecular study of Noonan syndrome to exclude chromosomal and non-chromosomal association with CH.

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Volume 12 Issue 01 January 2023