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FIRST-TRIMESTER CYSTIC HYGROMA WITH SUSPECTED HYDROPS AND NORMAL NEONATAL OUTCOME



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BACKGROUND

First-trimester cystic hygroma is associated with an increased risk of chromosomal abnormalities, structural malformations, hydrops fetalis, adverse perinatal outcome. However, spontaneous regression with a normal neonatal outcome can occur in selected cases.



CASE PRESENTATION

- 26-year-old **G1P0**
- Routine ultrasound at **12 6/7 weeks** showed cystic hygroma with increased nuchal translucency: **4.19 mm (>99th percentile)**
- Maternal history of congenital cleft palate, surgically repaired at 5 years old
- No other significant medical or obstetric history



DIFFERENTIAL DIAGNOSIS

- Chromosomal abnormalities
- RASopathies including Noonan syndrome
- Structural cardiac anomalies
- Congenital infection



PROPOSED MECHANISM

Transient lymphatic dysplasia, possibly due to delayed lymphatic development or temporary impairment of lymphatic drainage.

These were considered less likely due to low-risk aneuploidy screening, normal fetal cardiac evaluation, absence of additional abnormalities, and spontaneous resolution.



INVESTIGATIONS AND FOLLOW-UP

- **16 WEEKS**  **NIPT:** low risk for common aneuploidies
- **20 WEEKS**  **CAS:** suspected cleft palate
- **22 WEEKS**  **Fetal echocardiography:** normal
- **16-36 WEEKS**  Serial ultrasound showed gradual regression of the cystic hygroma with no progression to hydrops
- **UP TO TERM**  Fetal growth remained appropriate and amniotic fluid volume remained normal
- **Maternal Course**  Maternal glucose screening was normal and blood pressure remained stable



NEONATAL OUTCOME

- Pregnancy progressed without major complications
- Delivered at 41 weeks to a live male infant via CS
- Postnatal examination showed:
 - No hydrops
 - No structural anomalies
 - No cleft palate



KEY ULTRASOUND IMAGES



Figure 1. First-trimester ultrasound demonstrating increased nuchal translucency/cystic hygroma

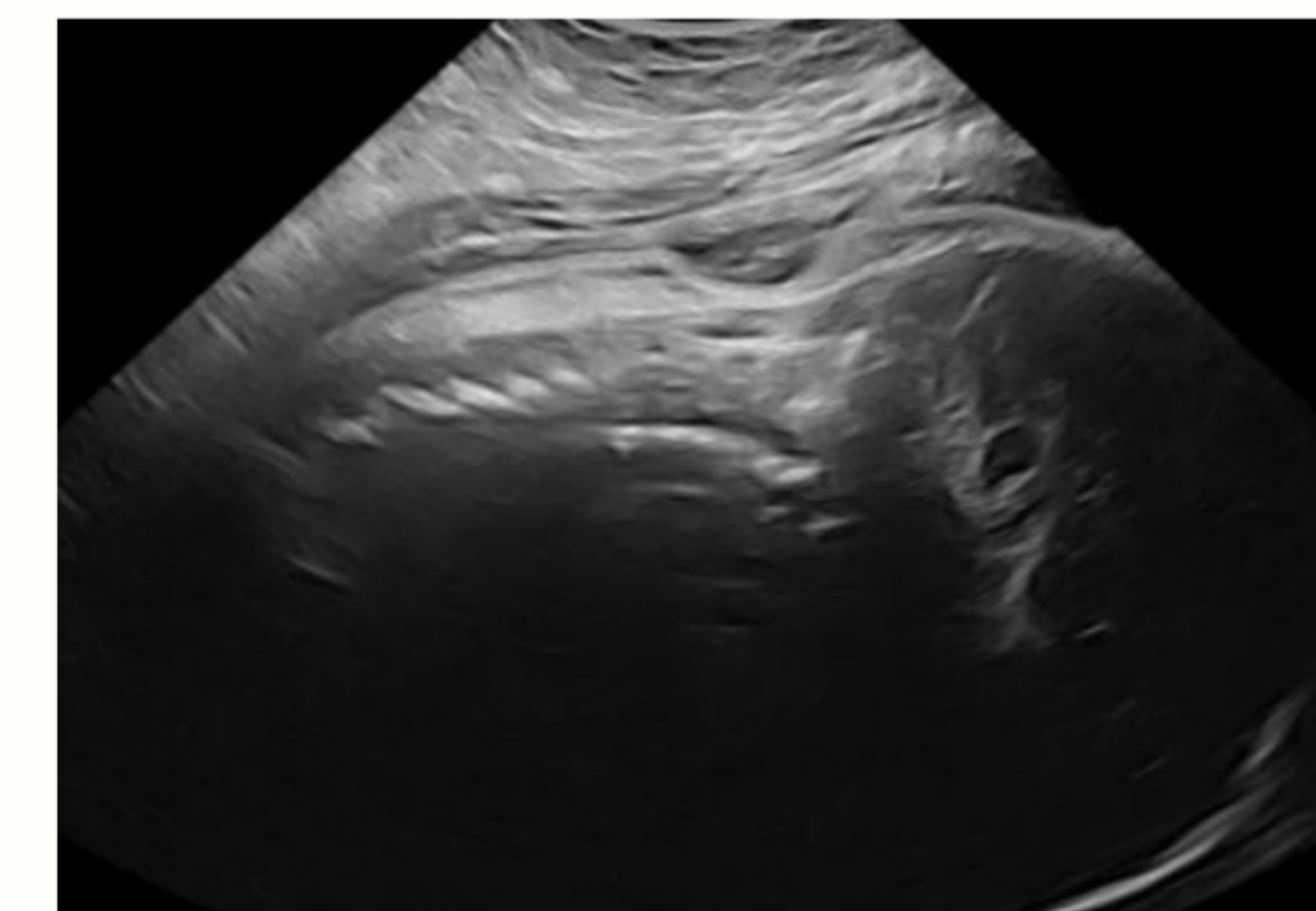


Figure 2. Follow-up sonographic image demonstrating regression of the cystic hygroma



CONCLUSION

- **First-trimester cystic hygroma may completely regress and still result in a normal neonatal outcome.**
- Serial ultrasound surveillance, comprehensive fetal assessment, genetic counseling, and multidisciplinary care are important for appropriate prognostication and to avoid overestimation of risk based solely on early sonographic findings.