Distended jugular lymphatic sacs in the first trimester of pregnancy

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Objective

To describe the prevalence of distended jugular lymphatic sacs in a first trimester screening ultrasound, and to evaluate the influence and prognostic relevance of fetal lateral neck cysts on the screening performance for chromosomal abnormalities and the importance of the associated findings.

Methods

It´s a retrospective study in a tertiary referral center in Madrid (Spain) over a period of 2 years (January 2017-December 2018). First trimester screening ultrasound was performed in a study population of 4845 patients. In fetus with distended jugular lymphatic sacs, additional planes in the neck region were performed using both transvaginal and transabdominal ultrasonography. The sacs were measured anterior-posterior. Karyotyping was performed by chorionic-villi-sampling or amniocentesis.

Results

Distended jugular lymphatic sacs could be visualized in 19 fetus. The incidence was 0,39% (19/4845). The mean age of pregnants was 36,74 (range 31-42). The left and right jugular lymphatic sac were measured in all fetus. The majority of cases were bilateral. Relatively greater nuchal translucency (NT) thickness was associated with a higher probability of the presence of distended jugular lymphatic sacs (11 fetus with NT > p99%, 3 fetus with NT p95-99% and 5 fetus with normal NT). 13 fetus (68,42%) presented associated findings or malformations. 7 fetus had chromosomal alterations (6 fetus were Down syndrome and 1 fetus was Edwards síndrome). Another 12 fetus had a normal karyotype (there were 2 spontaneus abortions at 14 weeks and 15 weeks).

Conclusion

The ultrasound visualization of distended jugular lymphatic sacs have a correlation with chromosomal abnormalities and increased nuchal translucency. Karyotyping should be offered in these cases.