

Comparing the results of ultrasound findings to fetal autopsies: a retrospective study in a tertiary center

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Objective

To determine the additional yield from autopsy following prenatal ultrasound for structural abnormalities.

Methods

A retrospective and descriptive study was performed since January 2014 to December 2018. We analyzed the fetal autopsies of legal pregnancy interruptions indicated by an ultrasound finding, excluding anhydramnios by preterm rupture of the membranes, twin-to-twin transfusion syndrome and structural malformations associated to genetic and well-known syndromes as Down or Edwards ones.

Results

Our study consisted of 103 fetuses without any genetic anomaly. In 28 of them, a malformation was detected in the prenatal ultrasound examination of the 12th week of gestation while in the other 75 cases the malformation was found in the 20th week. In 4/28 (14.29%) cases with an altered 12th week ultrasound, the autopsy was discordant with the ultrasound and in 11/28 (45.8%) it adds information. In 7/75 (9.33%) cases with an altered 20th week ultrasound, the autopsy was discordant and in only 13/75 (19.12%) it adds information to the ultrasound.

Conclusion

Normally, fetal autopsy is consistent with the ultrasound findings, but it may provide more information in many cases of early altered ultrasound in the first trimester of gestation due to the difficulty of diagnosis in this time. However, at 20th week of gestation, sonographers are capable of diagnosing the most important malformations with accuracy and fetal autopsy only confirms the findings. Anyhow, fetal autopsy do not change the clinical decision of ending the pregnancies and it could be interesting if it has an additional yield.