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# Life-threatening-fetal-goiter: diagnosis and outcome in four consecutive cases with critical appraisal

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### Background

The diagnosis of a fetal goiter represents a life-threatening condition for the fetus. Even with early diagnosis, close therapy with highly specialized interdisciplinary management, prognosis remains poor.

### Methods

Four consecutive cases of fetal goiter are presented that were diagnosed during routine ultrasound in 2<sup>nd</sup> and 3<sup>rd</sup> trimester. All cases underwent close and intensive pre- and postnatal diagnostics and treatment.

### Results

In one case, the mother suffered from Graves' disease with normal blood parameters under medication. The other gravidae had no medical history with euthyroid metabolism. In all cases, fetal hypothyroidism was suspected and in three of them, cordocentesis was performed and intraamniotic LT4

was given. In none of the cases, there were no sonographic signs of tracheal compression. In all four cases, a planned Caesarean section was performed between 32 and 39 weeks of gestation (WG). One fetus died antenatal in 35<sup>th</sup> WG (fetus in fig. 1 and 2), one newborn died due to insufficient ventilation and one due to fetal decompensation with bilateral hydrothorax with suspected ductal obstruction. The fetus who survived showed primary hypothyroidism. Two of the deceased fetuses were autopsied, one showed ectopic thyroid tissue in the trachea.

### Conclusion

Prenatal diagnosis of congenital fetal goiter remains a serious event in specialized centers. Interdisciplinary cooperation is mandatory when determining the time of delivery and planning an EXIT strategy.



*Figure 1. 3D-ultrasound imaging with Samsung Hera W10 in 27<sup>th</sup> WG. Internal structures of the fetal goiter on Crystal Vue™.*

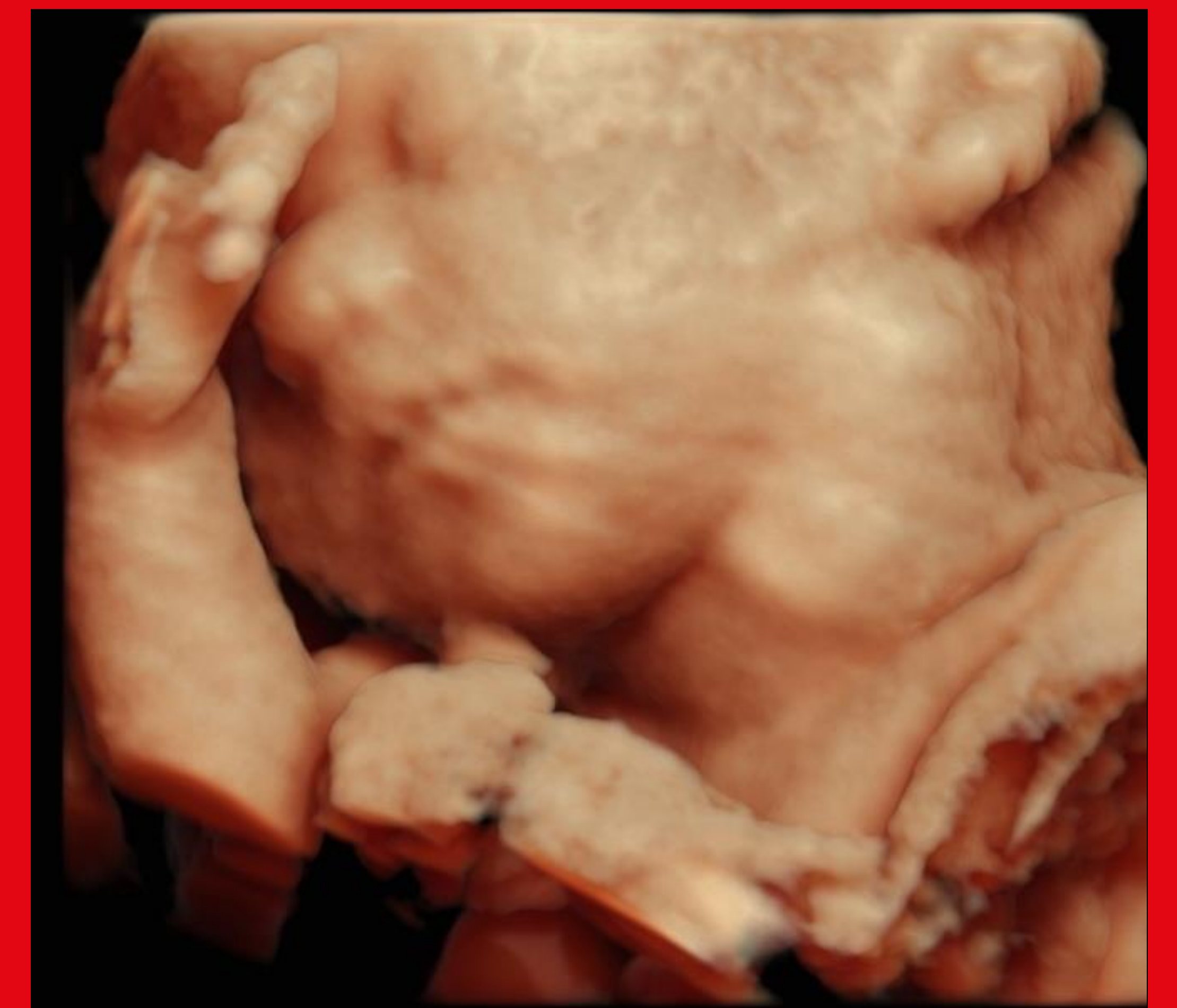


*Figure 2. 3D-ultrasound imaging with GE Voluson E10 in 28<sup>th</sup> WG. The left thyroid lobe extends from the sub-mandibular region to the upper thoracic aperture.*

#### Contact

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