PHILIPS

Ultrasound

Clinical case study

eL18-4 PureWave linear array transducer

Category Fetal thymus gland

Authors

Carole Gravino, RDMS, Laura Vazquez, RDMS, Joshua Copel, MD Yale-New Haven Hospital Assessment of the fetal thymus gland using the eL18-4 PureWave linear array transducer

Overview

Diagnostic ultrasound is routine in pregnancy to rule out structural abnormalities. In the setting of cardiac disease, the thymus gland should be evaluated.

Patient history

A 30-year-old, healthy pregnant woman at 18 weeks 1 day gestation was evaluated during a routine anatomical survey.

Protocol

With a BMI of 23, this patient was a candidate for assessment of the fetal thymus gland. Both the curved C9-2 and the linear eL18-4 transducers were used.

Although the thymus gland is visualized with the C9-2, the eL14-8 enhanced the borders of the gland for better visualization.



The Philips eL18-4 PureWave linear array transducer is our first high-performance transducer featuring ultra-broadband PureWave crystal technology with multi-row array configuration, allowing for fine-elevation focusing capability.



Figure 1 The thymus gland is identified by the arrow using the C9-2 transducer. Notice the borders are difficult to visualize.



Figure 2 The thymus gland is identified by the arrow using the eL18-4 transducer. The gland is enhanced and the borders are well visualized.

Conclusion

This clinical case shows enhanced visualization of the thymus gland. Thymic hypoplasia and thymic aplasia have been reported as an association with 22q.11.2 deletion (DiGeorge syndrome). The eL14-8 linear transducer clearly enhances visualization of the gland.

Reference

- 1 Lee W and Van Den Veyver I. "22q11.2 Deletion Syndrome." In Obstetric Imaging: Fetal Diagnosis and Care. Ed. Joshua Copel. Atlanta, GA: Elsevier Inc.; 2018.
- 2 Zuckerwise L, Li L and Copel JA. "Thymus." In Obstetric Imaging: Fetal Diagnosis and Care. Ed. Joshua Copel. Atlanta, GA: Elsevier Inc.; 2018.

Results from case studies are not predictive of results in other cases. Results in other cases may vary.



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