First trimester ultrasound in the diagnosis of thoracopagus conjoined twins

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Objective
Monozygotic monoamniotic twinning may result in conjoined twins, a rare event occurring with an incidence of 1 per 100,000 births. Ultrasonography will probably be the first imaging modality to identify the anomaly. We described a case which was seen in our department. Although 2D (2-dimensional) ultrasonography was able to demonstrate the anomaly, the added value from 3D (3-dimensional) ultrasonography had facilitated a more definitive diagnosis and presentation to the patient.

Methods
The patient was a 35 year old Chinese lady, gravida 2, para 0. Her first pregnancy ended in early miscarriage; no other medical history of note. Ultrasound at 6.3 weeks' gestation noted a 2.0 cm gestational sac with a single yolk sac. There was no embryo demonstrated. At 7.3 weeks' gestation, ultrasound showed a viable embryo of 9 mm, concurring with 6.9 weeks. When she turned up for First Trimester Screening at 11.9 weeks, twins were demonstrated. They were joined at the thorax and there appeared to be a common heart shared by the twins. Findings were suggestive thoracopagus conjoined twins. A fetal anomaly scan which was performed six hours later did not show any change in the fetal appearances or the position of the fetus relative to each other. Thoracopagic conjoint twins were confirmed. The patient was counselled regarding the dismal outcome and she opted for a termination of pregnancy.

Results
2D and 3D ultrasound images of thoracopagus conjoined twins.

Conclusion
Sonographically, the anomaly may not be obvious at less than seven 7 weeks gestation.