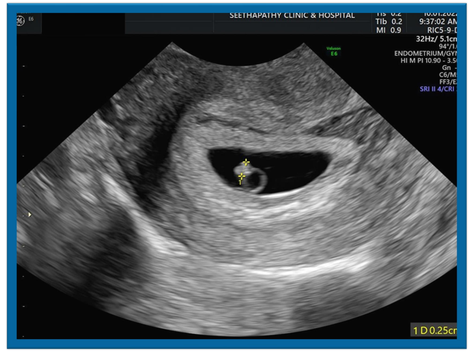
Prenatal ultrasound diagnosis of Conjoined twins in early first trimester

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Introduction: Conjoined twins are rare, type of monoamniotic twinning seen in 1.5 per 100,000 births worldwide(1). We report a case of prenatal diagnosis of conjoined twins by ultrasound in early first trimester which helped provide appropriate and timely counselling for the family.

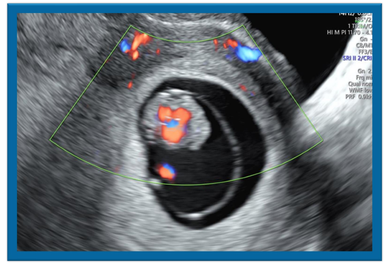
Case report: A 29-year-old primigravida, conceived with the first cycle of ovulation induction with Letrozole.

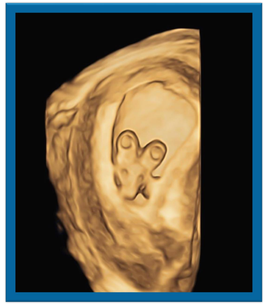


Presented with spotting at 5+6 weeks gestational age (GA). A single intrauterine gestational sac with a viable pregnancy and a single yolk sac. The fetal pole measured 0.27 cm and appeared abnormally wide.

Follow up scan at 7 +6 GA a single gestational sac seen with one amnion with two conjoined fetal poles. The CRL of both the fetuses measured 1.85 cm and 1.89 cm respectively. On zooming the image it appeared that the twins shared one heart. Our initial impression of the twins was ***thoracopagus conjoined twins*****.** The family was counselled, the findings and the prognosis explained. Couple requested a rescan after a week.

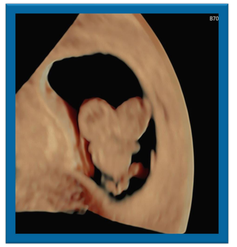






Subsequently at 8 +6 GA, 2 D and 3 D ultrasound showed conjoined twins with two heads ,a single thorax ,two upper and lower extremities which appeared as parapagus dicephalus conjoined twin.
We counselled the patient .As the prognosis of conjoined twins was poor patient opted for medical termination of pregnancy. Unfortunately, as the patient expelled the fetus spontaneously, we could not collect the abortus





Discussion: Prenatal ultrasound diagnosis of conjoined twins was first reported by Fagan (2) in 1977 at 32 weeks . In 1981 Schmidt et al (3) reported thoracoomphalogus conjoined twins at 11 weeks gestation. Only 3 cases were reported at 7 – 8 weeks in a series of 75 cases diagnosed in the first trimester reviewed by Chen et al(4) in 2011. Prognosis depends on the body parts shared and is usually poor.

Ultrasonographic diagnostic criteria for first trimester :

- Bifid appearance of first trimester fetal pole
- Absence of membrane between the conjoined fetuses
- Persistency of heads at the same level and body plane
- Inseparable bodies or heads despite changes in fetal position
- Presence of more than three umbilical cord vessels

Pitfalls of early diagnosis

- Membrane maybe present but not be easily visible in some MC twins
- Amniotic fluid has not reached maximal volume so close proximity can give an illusion of conjoined twins
- False-positive cases are common before 10 weeks because, earlier in gestation, fetal movements are limited and monoamniotic twins may appear conjoined

Conclusion: We report a very early diagnosis of conjoined twins at 7+6 weeks GA. This helped to counsel the family and offer appropriate treatment

Reference:

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3.W. Schmidt, et al, Antepartum ultrasonographic diagnosis of conjoined twins in early pregnancy Am J Obstet Gynecol.139 (1981)
4. Chih-Ping Chen et al,Conjoined twins detected in the first trimester: A review,Taiwanese Journal of Obstetrics and Gynecology 2011,