

Background

Clinical and genetic anomalies associated with **short fetal corpus callosum (sCC)** on fetal magnetic resonance imaging (MRI) present significant prenatal counselling challenges.

Objective

To evaluate the genetic, imaging and postnatal outcomes of fetuses with **sCC diagnosed on fetal MRI**.

Methods

Study Design	• Retrospective cohort • January 2022 and August 2025
Inclusion	• Fetuses with sCC on MRI, defined as CC length ≤ 2 standard deviations (SD) below the expected mean
Imaging	• Intra- and extra-cranial associated anomalies; • CC:CFOD ratio : <i>CC length / cerebral fronto-occipital dimension</i>
Genetics	• CMA + trio exome sequence (prenatal or postnatal)
Outcomes	• Postnatal outcomes

Results

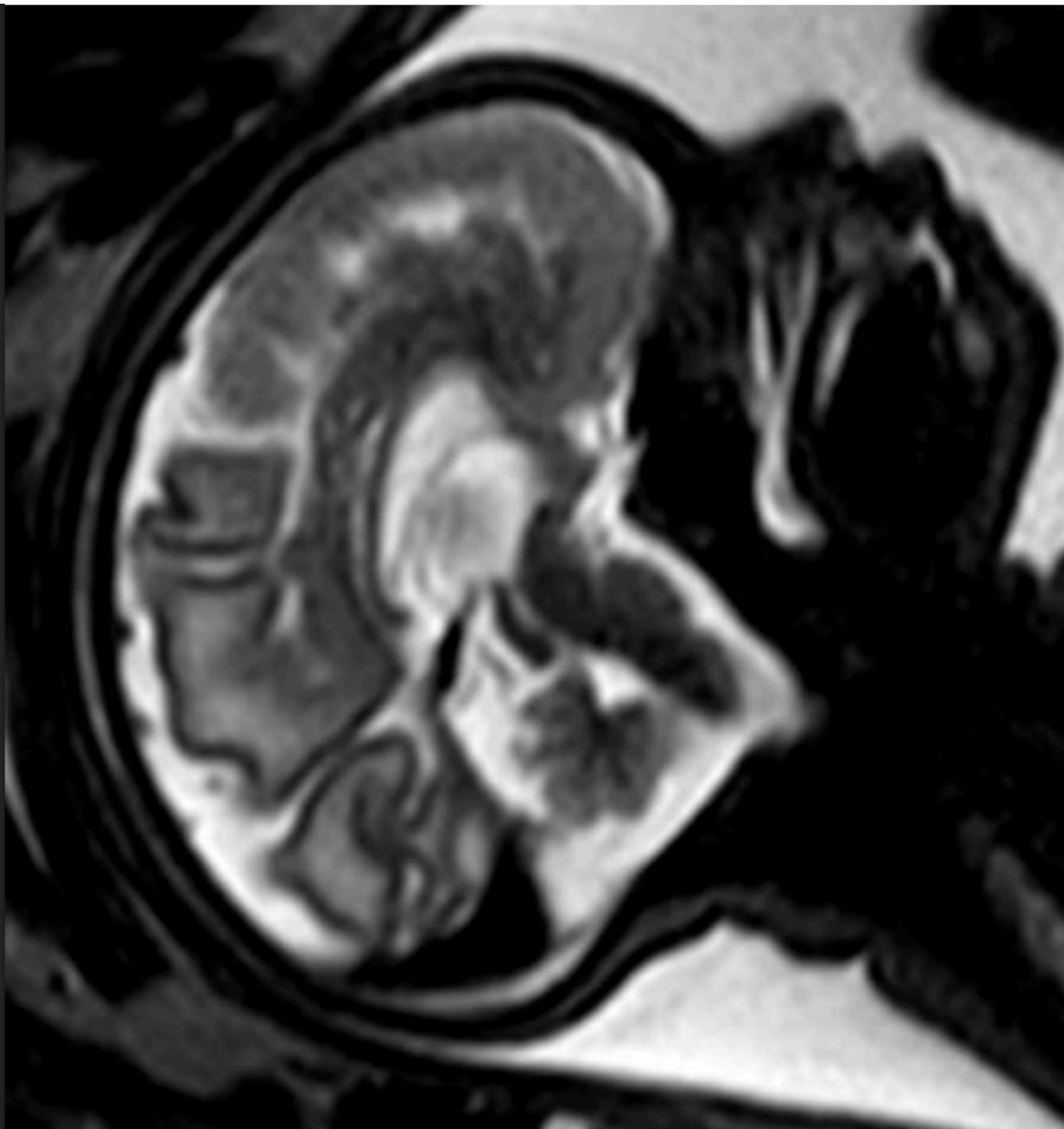
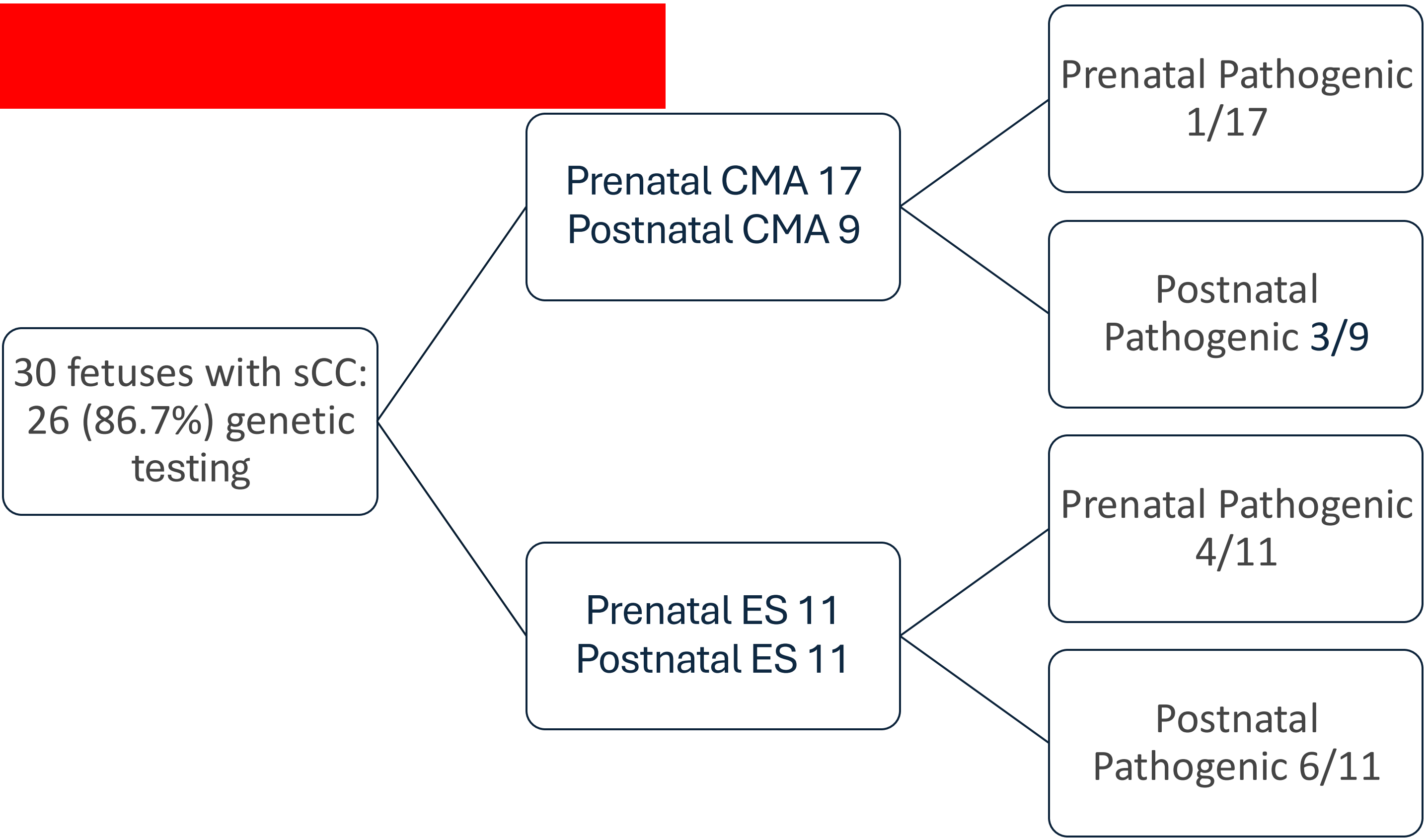
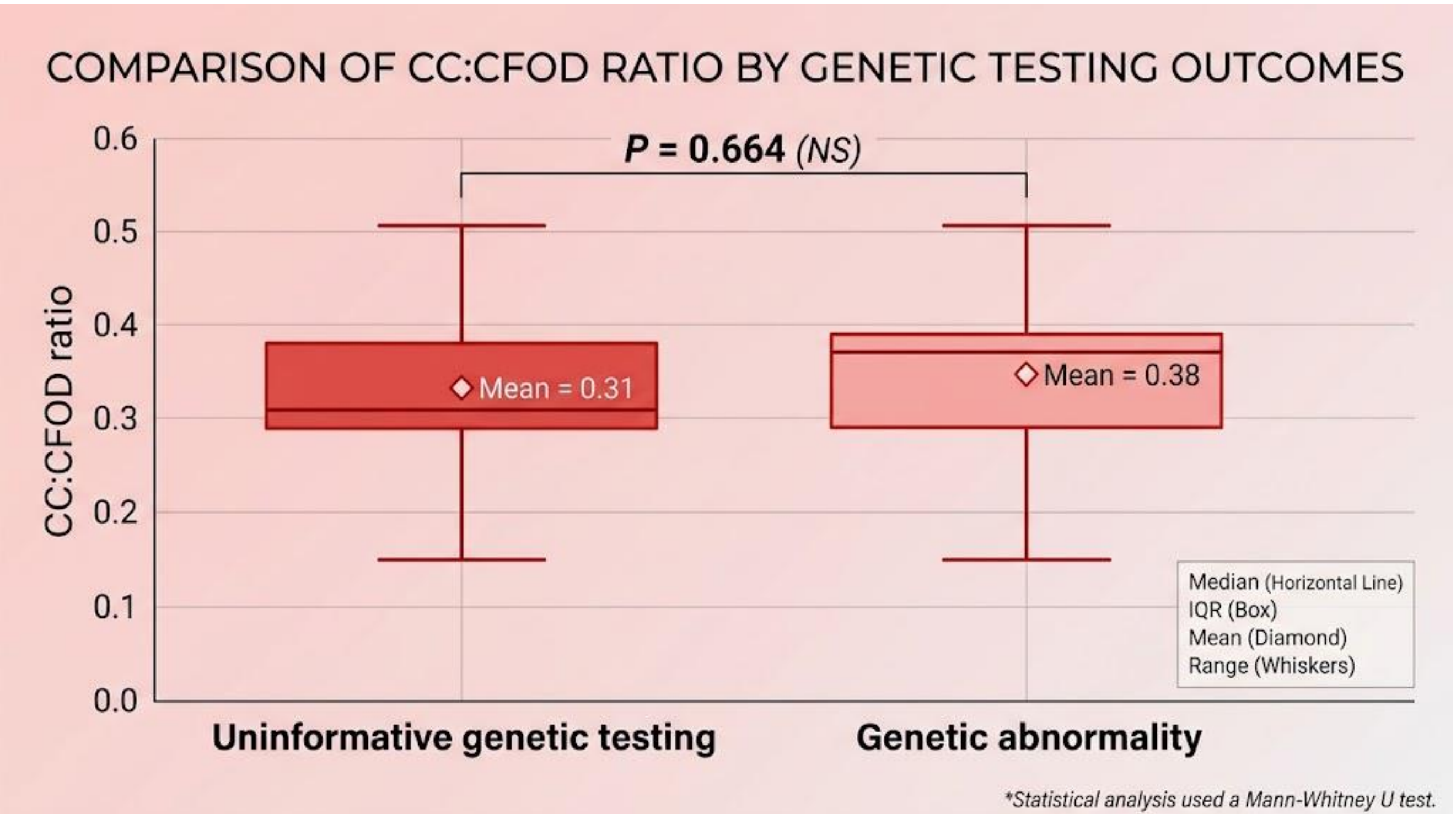


Fig. Sagittal T2 on fetal MRI sCC (-3 SD) at 33weeks- inherited TUBB pathogenic variant. There was isolated mild unilateral ventriculomegaly on US at 32 weeks gestation.

ISOLATED sCC = 4/30 (13.3%) :

- 3/4 had genetic testing – all with **no pathogenic variants**.
- 2/4 termination of pregnancy.
- 1/4 confirmed postnatal sCC, no developmental concerns at 3 weeks.
- 1/4 lost to follow-up.

Postnatal outcome data remain insufficient to establish prognosis.



CONCLUSION :

- **PATHOGENIC GENETIC** findings were identified in **50%** of tested fetuses with sCC.
- All fetuses with **ABNORMAL GENETIC** results had **ADDITIONAL ANOMALIES** on tertiary ultrasound and/or MRI.
- **CC:CFOD RATIO** was **NOT ASSOCIATED** with genetic abnormalities.
- The **PROGNOSIS** of **ISOLATED** sCC = **UNCERTAIN**