

EP05.141 Prenatal imaging assessment of fetal myelomeningocele with Chiari II malformation: implications for multidisciplinary counselling.

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Introduction

Myelomeningocele (MMC) is the most severe form of open spina bifida and is frequently associated with Chiari II malformation. Prenatal prognostic evaluation should integrate lesion characteristics, intracranial findings and fetal motor function to support individualized multidisciplinary counselling.

Case presentation

A 38-year-old woman was referred at 24 weeks' gestation for suspected fetal neural tube defect. Ultrasound showed an L5 lumbosacral cystic lesion measuring 0.6 × 0.9 cm, with intracranial findings including lemon sign, banana sign, cisterna magna obliteration and dangling choroid plexus, suggestive of Chiari II malformation. The lateral ventricles was measured 9.3 mm, and fetal lower limb movements were preserved. Fetal MRI confirmed lumbosacral MMC (0.7 × 0.6 cm), tethered cord and Chiari II malformation.

Perinatal course

Spontaneous preterm delivery occurred at 35+2 weeks. At birth, a 1.0 × 1.5 cm MMC was confirmed. On postnatal day 2, surgical repair with detethering, duroplasty and sacral reconstruction was performed .

Postnatal outcome

Favorable motor outcome: ambulation and bowel/bladder function preserved.

Postnatal imaging revealed hydrocephalus and persistent Chiari II findings, but CSF diversion was not required. One-year MRI showed progression of hydrocephalus; regular follow-up continues.

Conclusion

Integrated prenatal imaging supports individualized multidisciplinary counselling in fetal MMC. In addition to intracranial signs, small lesion size and preserved fetal motor function may provide complementary prognostic information for postnatal functional outcomes.

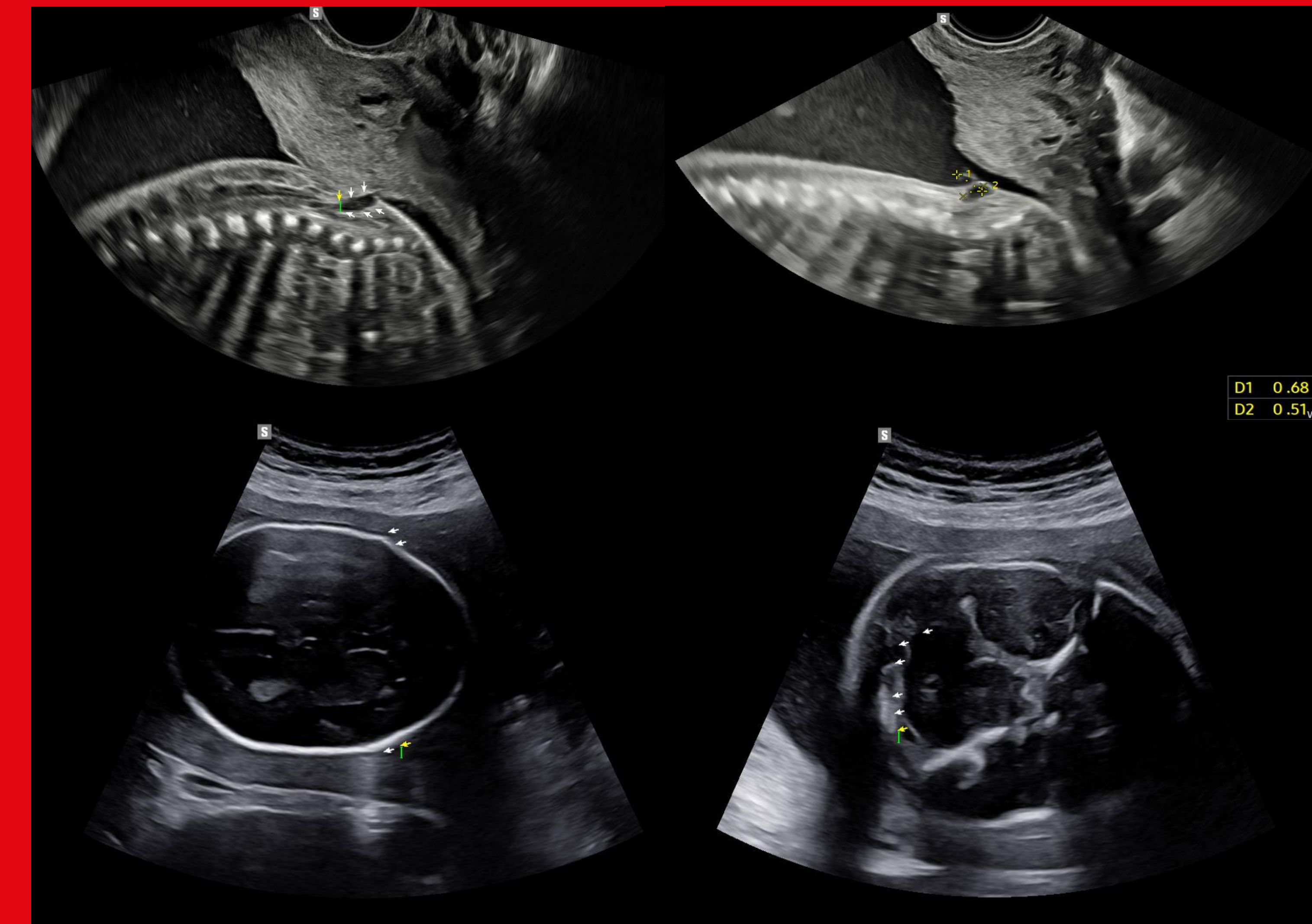


Figure 1. Prenatal ultrasound findings.

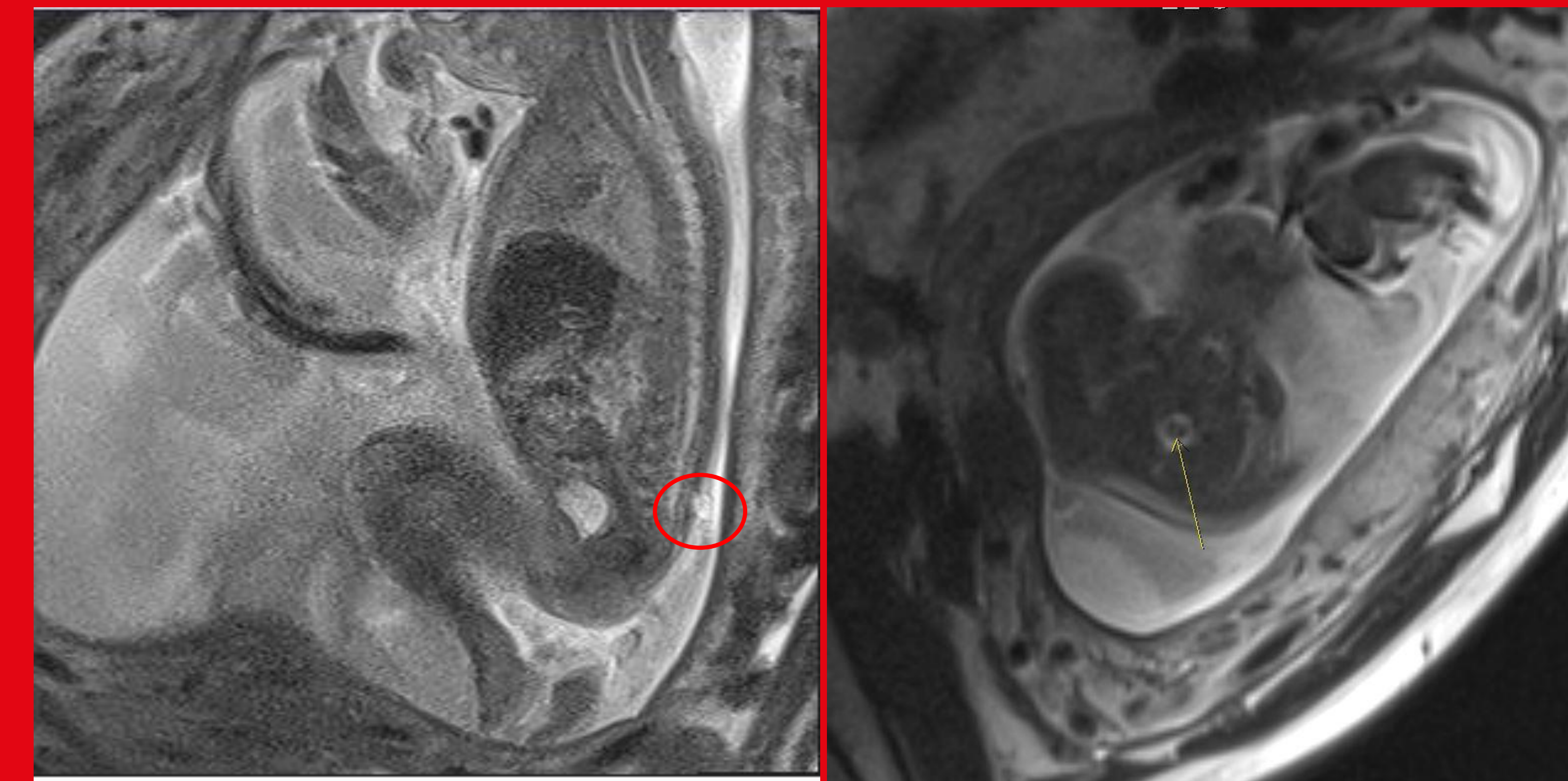


Figure 2. Fetal MRI