

EP09.60. Prenatal ultrasound diagnosis and intrauterine repair of myelomeningocele: two-year neurodevelopmental follow-up

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Introduction

Myelomeningocele is a neural tube defect that may be associated with Chiari II malformation. Prenatal ultrasound plays a key role in identifying characteristic cranial and spinal abnormalities, enabling timely referral for fetal surgery and appropriate multidisciplinary follow-up.

Case Presentation

A 33-year-old primigravida had normal first- and second-trimester morphological ultrasounds at another service. At 26+6 weeks, routine ultrasound revealed a lemon-shaped skull, lateral ventricular atrium dilation, inferior cerebellar displacement, and a lumbosacral neural tube defect, consistent with myelomeningocele associated with Chiari II malformation. She was referred the same day to a specialized fetal surgery center, where the diagnosis was confirmed and detailed fetal assessment was performed.

Discussion

This case highlights the importance of detailed prenatal ultrasound in the diagnosis of neural tube defects. The identification of characteristic cranial and spinal abnormalities at 26+6 weeks allowed timely referral to a specialized fetal surgery center and subsequent intrauterine repair at 27+6 weeks. Serial prenatal ultrasound and long-term multidisciplinary follow-up provide an opportunity to monitor postoperative evolution and assess neurodevelopmental outcomes following prenatal repair.

Conclusion

Detailed prenatal ultrasound enabled the diagnosis of myelomeningocele associated with Chiari II malformation and facilitated timely referral for fetal surgery. Long-term multidisciplinary follow-up is valuable for assessing motor and neurological outcomes after intrauterine repair.

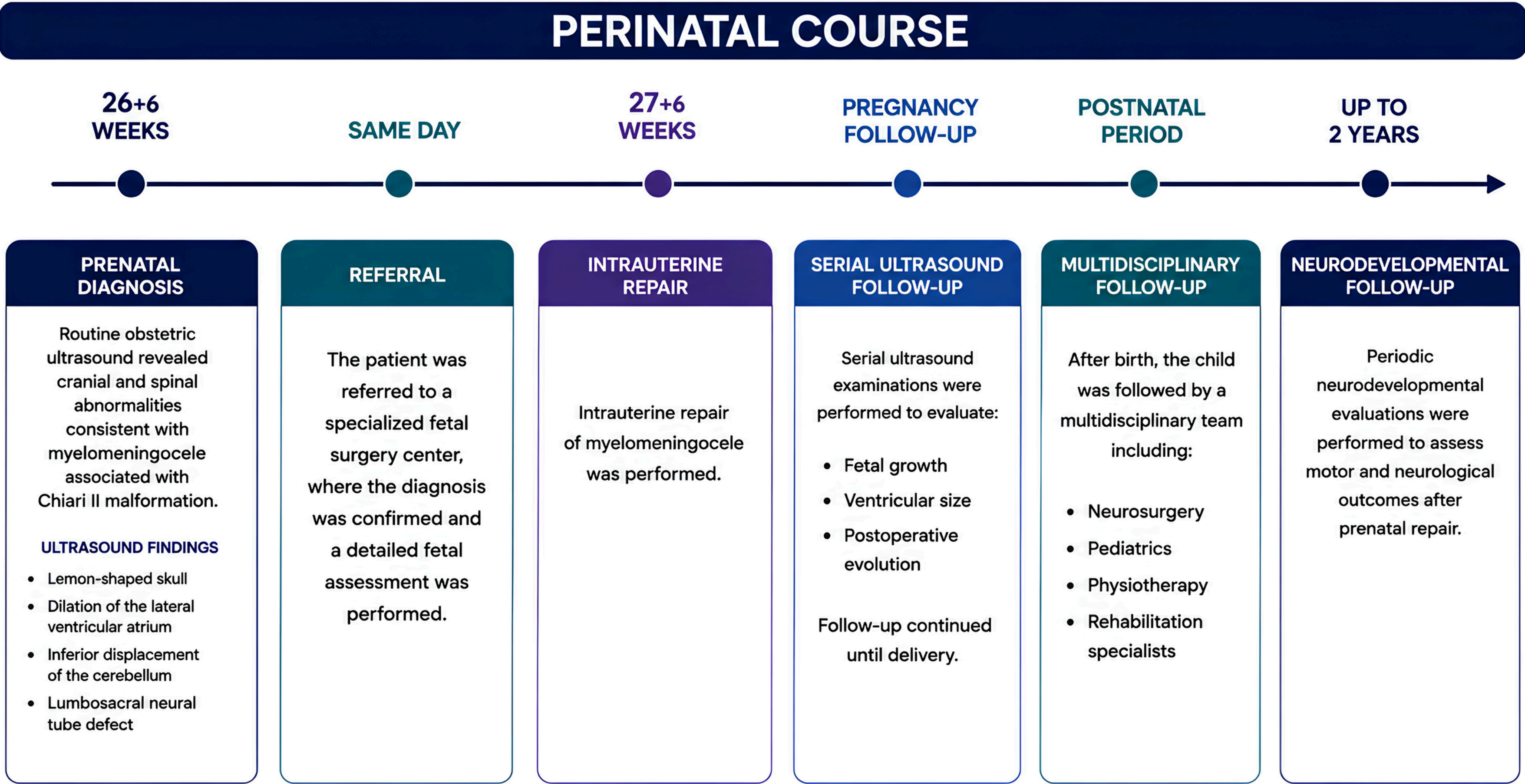


Figure 1. Fetal lumbosacral myelomeningocele with posterior vertebral arch defect and neural tissue protrusion.



Figure 2. Intraoperative fetoscopic image during fetoscopic repair of fetal myelomeningocele.

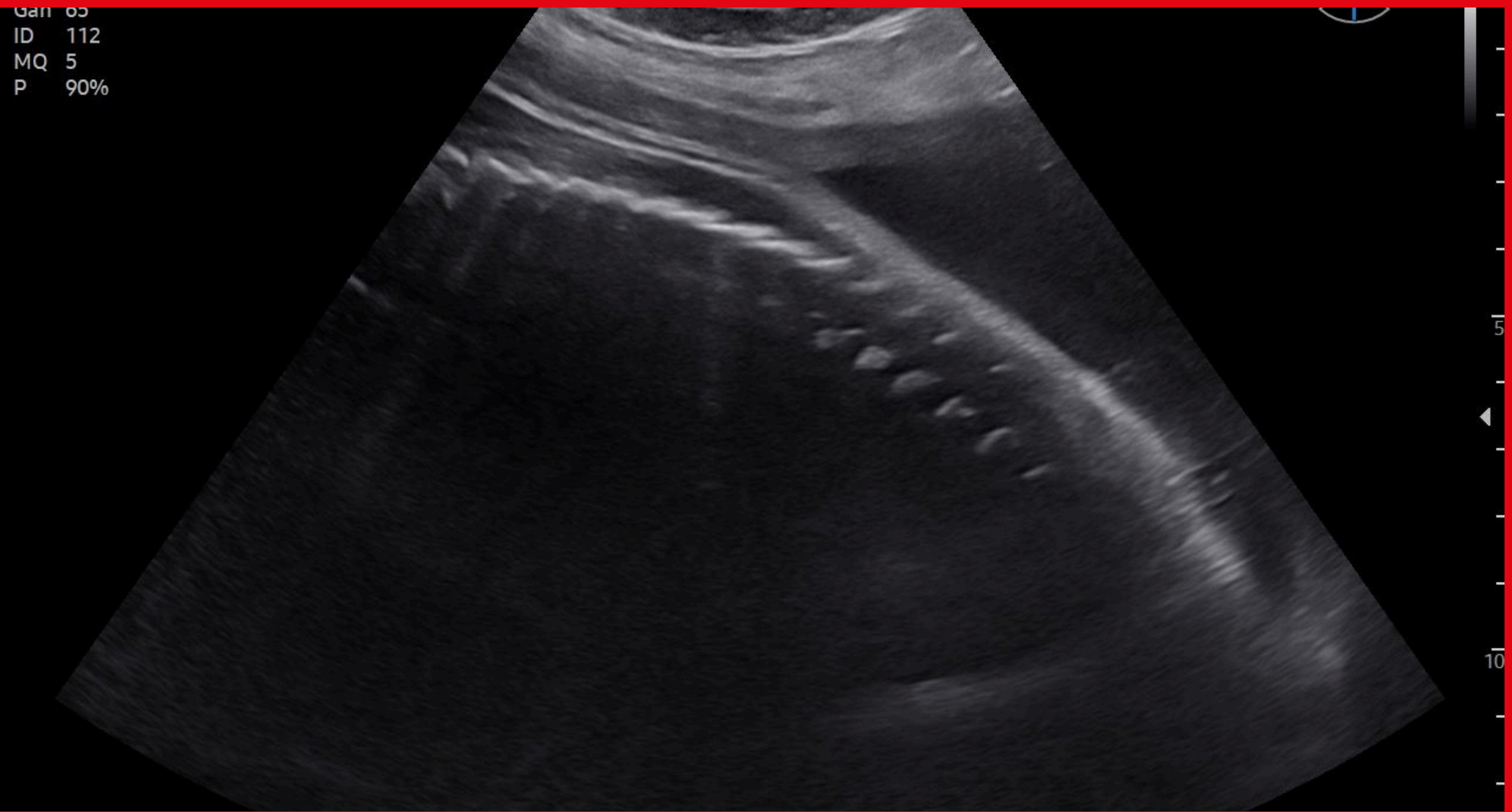


Figure 3. Fetal ultrasound after intrauterine myelomeningocele repair showing restoration of the posterior spinal contour without residual protrusion.

