Limited dorsal myeloschisis, a challenging differential diagnosis from myelomeningocele

Overview
Limited dorsal myeloschisis is a distinctive form of spinal dysraphism characterized by a focal midline neural tube defect associated with tethering of the dorsal spinal cord to the overlying skin. Prenatal diagnosis is rare, and yet distinguishing limited dorsal myeloschisis from myelomeningocele is important since the two conditions have very different prognoses. High-resolution scanning available on the EPIQ 7 ultrasound system helps clinicians visualize structures in order to meet this challenge.

Findings
A lumbosacral meningocele of $15 \times 15 \times 15$ mm was confirmed, but, certain aspects were inconsistent with the diagnosis of myelomeningocele. There was evidence of mild bilateral ventriculomegaly of $12$ mm, but, no Arnold-Chiari type II malformation detected.

Postnatal examination confirmed a lumbosacral, midline, fluid-filled mass at the level of L5 S1, covered by a thin layer of dysplastic skin, which was not a myelomeningocele but, a limited dorsal myeloschisis.

Patient history
A 27-year-old primigravida was referred to our center at 23 weeks’ gestation to confirm the lumbar myelomeningocele diagnosis suspected on a screening sonogram.

“Distinguishing limited dorsal myeloschisis from myelomeningocele is important, as the two conditions have very different prognoses.”
Pascale Bach-Segura, MD, Radiologist

The EPIQ ultrasound system features a range of transducers for high-resolution scanning to meet the challenges of today’s most demanding Ob/Gyn practices.
Conclusion

Despite the markedly abnormal prenatal appearance of limited dorsal myeloschisis with a large meningocele and a tethered fibroneural stalk, it is usually associated with a favorable prognosis. However, it is important to look for associated anomalies, in particular ventriculomegaly and other subtle anomalies of the central nervous system that may negatively affect the prognosis.

References


Results from case studies are not predictive of results in other cases. Results in other cases may vary.