



IMAGES IN PAEDIATRICS

Neonatal diagnosis of cervical limited dorsal myeloschisis



Mielosquisis dorsal limitada cervical de diagnóstico neonatal

Esther Aguilera Rodríguez^{a,*}, María Luisa Egea Giménez^a, Esperanza Arcas Navarrete^b, Javier Díez-Delgado Rubio^a

^a UGC Pediatría, Hospital Materno Infantil Princesa Leonor, Almería, Spain

^b UGC Neurocirugía, Hospital Virgen de las Nieves, Granada, Spain

Received 9 July 2024; accepted 9 October 2024

Available online 31 January 2025

Limited dorsal myeloschisis is a primary neurulation defect resulting from incomplete disjunction of the cutaneous and neural ectoderm. It manifests with a cutaneous lesion and a fibroneural stalk linking the lesion to the underlying spinal cord.^{1,2}

We present the case of a male neonate born with a circular lesion on the neck that measured 2 × 3 cm and was covered by a flaccid membrane (Fig. 1). The prenatal ultrasound findings had been normal. Treatment with folic acid was interrupted in the early months of pregnancy.

The next day, the lesion had enlarged and contained serosanguineous fluid, increasing in size in association with increasing intraabdominal pressure (Fig. 2). A cervical ultrasound scan revealed a hypochoic tract that extended to a small area with absence of fusion of the posterior laminae. An MRI scan allowed visualization of an ascending tract



Figure 1 Examination at birth: flaccid membrane with no apparent contents or signs of inflammation.

that reached the thecal sac, with mild dilation at the level of C4-C5, with slight tethering of the spinal cord toward it including the meninges (Fig. 3). At 4 days post birth, the patient underwent dissection and closure of the defect. The histological examination of the specimen revealed the presence of glioneuronal tissue in the mid and deep dermis positive for S100 protein and glial fibrillary acidic protein

DOI of original article:

<https://doi.org/10.1016/j.anpedi.2024.503700>

* Corresponding author.

E-mail address: Esther.aguilera.sspa@juntadeandalucia.es (E. Aguilera Rodríguez).



Figure 2 Examination at 24 h: lesion with fluctuant serosanguineous contents.

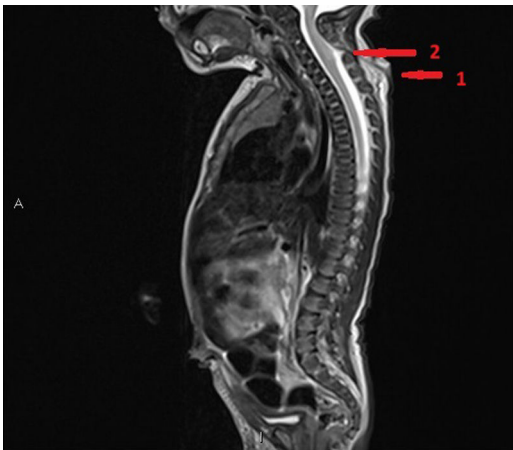


Figure 3 Magnetic resonance imaging. Arrow 1: visualization of ascending tract reaching the thecal sac, which is slightly dilated. Arrow 2: slightly dilated thecal sac at the level of C4-C5 with spinal cord slightly tethered toward it, including the meninges.

(GFAP), in addition to a fibrous tract with cells positive for GFAP.

References

1. Morioka T, Suzuki SO, Murakami N, Mukae N, Shimogawa T, Haruyama H, et al. Surgical histopathology of limited dorsal myeloschisis with flat skin lesion. *Childs Nerv Syst.* 2019;35:119–28.
2. Wong ST, Pang D. Focal spinal nondisjunction in primary neurulation: limited dorsal myeloschisis and congenital spinal dermal sinus tract. *J Korean Neurosurg Soc.* 2021;64:151–88.