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IMAGES OF SPINE CARE

Multiple extradural and intradural spinal anomalies in a child

A 7-year-old boy presented with history of weakness of the lower limbs and bladder incontinence since early childhood. His magnetic resonance imaging at 4 months of age had demonstrated multiple spinal anomalies (Fig. 1A). He was lost to follow-up after having being advised surgery. Magnetic resonance imaging done 7 years later demonstrated a Chiari type I malformation with a holocord syrinx (Fig. 1B, C), a ventrally located, intradural cystic lesion suggestive of a neurenteric cyst compressing the cord from C3 to C5 levels (Fig. 1B–D), and scoliosis of the lower cervical spine (Fig. 1D). The conus was noted to be low lying and tethered (Fig. 2A), and there was evidence of a split cord malformation (Fig. 2B) with two holocords seen at the L4 level. Computed tomography of the lumbosacral spine (Fig. 2C, D) demonstrated evidence of lumbosacral agenesis, with absence of L5, S1, and S2 vertebral bodies, incompletely formed posterior elements, and total absence of the rest of the sacral vertebrae and coccyx. Some of the other spinal anomalies included partial fusion of multiple vertebral bodies in the dorsal and cervical regions and a

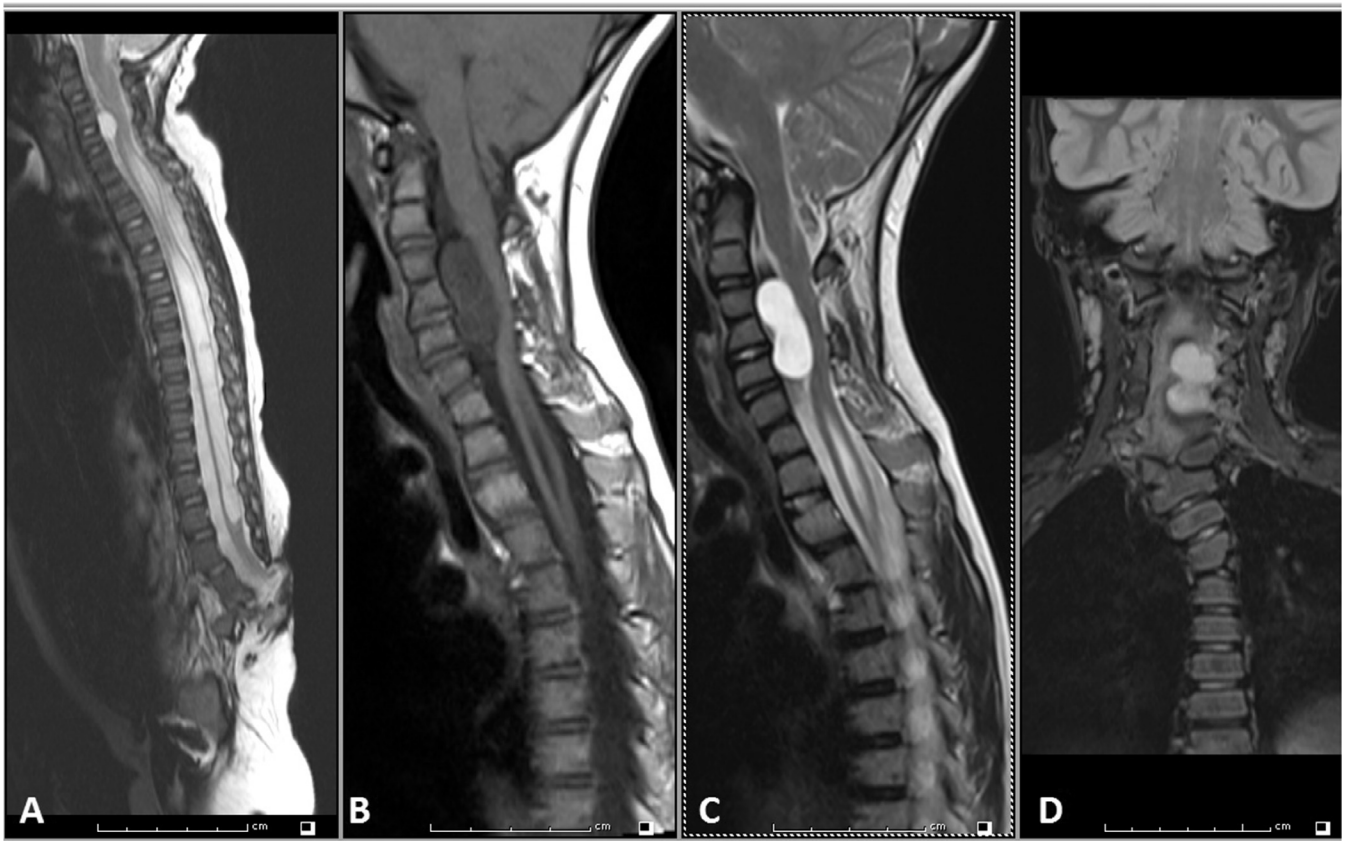

Fig. 1. MRI of the whole spine at 4 months of age: (A) sagittal T2 sequence demonstrating the cervical neurenteric cyst, a holocord syrinx, and a tethered cord. Follow-up MRI at 7 years of age: (B) sagittal images showing the cystic lesion to be hypointense on T1-weighted sequences, and (C) hyperintense on T2-weighted sequences. (D) Scoliosis of the lower cervical spine noted on coronal sequence.

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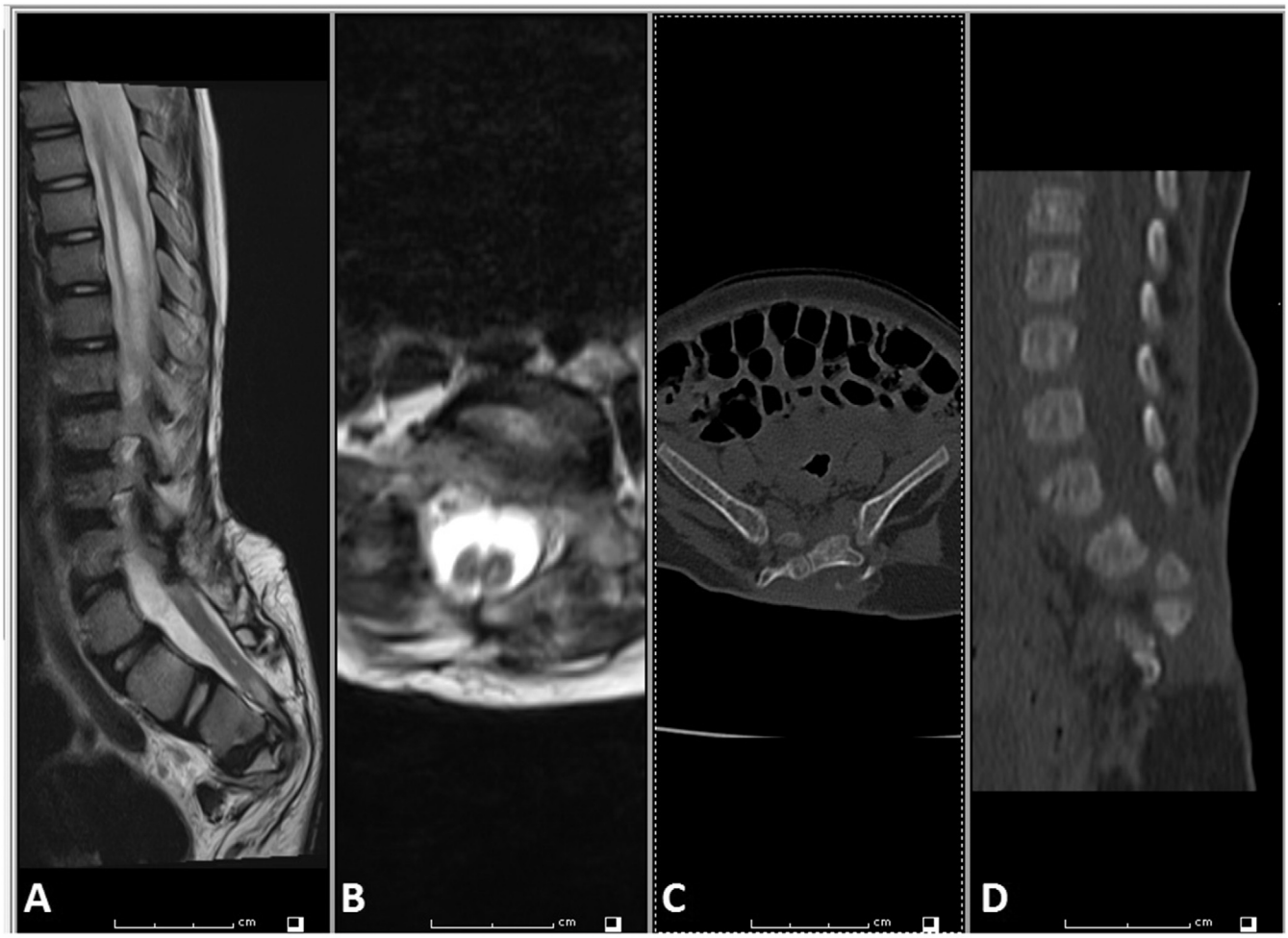

Fig. 2. Follow-up MRI of the lumbosacral spine showing (A) the lower extent of the holocord syrinx and a low-lying, tethered conus on sagittal T2 sequence; (B) T2-weighted axial section at L4 demonstrating a split cord malformation with two evident holocords. CT images of the lumbosacral spine showing (C, D) the absence of L5, S1, and S2 and the sacral vertebrae, and incompletely formed posterior elements.

few hemivertebrae in the dorsal spine. The boy underwent a foramen magnum decompression, excision of the neurenteric cyst, and detethering of cord.

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