Dermal sinus with intradural lipoma  
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**History**  
One month old with palpable spinal deformity and abnormal ultrasound.

**Diagnosis**  
Dermal sinus with dermoid and intradural lipoma

**Discussion**  
Location varies: Lumbosacral (60%) > occipital (25%) > thoracic (10%) > cervical (1%). Thin subcutaneous tract of variable length with or without dysraphism. The etiology is focal incorporation of cutaneous ectoderm into neural ectoderm during disjunction at a circumscribed point leading to focal segmental adhesion. The spinal cord ascends relative to the spinal canal and stretches the adhesion into a long, tubular tract. Associated abnormalities include (Epi)dermoid tumor (30-50%); with a midline sinus ostia it is usually a dermoid and with a paramedian ostia, epidermoids are more common. Epidural/subdural abscess, meningitis, or intramedullary abscess 2° to staphylococcal or coliform bacteria may occur and a lipoma may be seen in 15-20%.  
On T1WI, the sinus tract is hypointense to subcutaneous fat and passes inferiorly and ventrally to ascend within the spinal canal. Dorsal dural tenting indicates dural penetration. Intradural sinus course is nearly impossible to follow. There may be a (Epi)dermoid cyst anywhere along the tract. The dermoid is hypo to hyperintense depending on the composition. On T2WI, the sinus tract is hypointense to subcutaneous fat with or without a hyperintense (epi)dermoid cyst. T1WI with contrast may show an intradural extramedullary abscess, infectious or chemical arachnoiditis.

**Findings**  
Sagittal T1 with midline hypointense linear tract extending from the skin to the dura. Small irregularly shaped hypointense collection at the level of the dura compatible with a dermoid. Hyperintense lesion posterior to the distal spinal cord compatible with a lipoma (demonstrated signal suppression on STIR). Spinal cord termination at L2-3. Spinal dysraphism.

**Reference**  
Statdx. Dorsal dermal sinus. Kevin R Moore MD.
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