Diastematomyelia is a congenital condition in which the spinal cord is split into two hemicords which usually reunite above and below the cleft. A fibrous or osseous spur is often present between the two hemicords. The dural sac may be single or duplicated. Most cases are seen in the thoracolumbar region. Patients often have associated abnormalities such as scoliosis, vertebral body anomalies, and tethered spinal cord. Symptomatology is usually related to tethering and may be aggravated by trauma. Common problems include low back pain, gait spasticity, sensory disturbance, and urinary dysfunction. Treatment is surgical, with resection of any traction-causing spur and de-tethering of the cord.

Sagittal T2 image (below) shows moderate right-convex scoliosis at the thoracolumbar junction and two hemicords within the lumbar dural sac (arrows). These unite at the tip of the conus which itself lies at the lower L3 level, indicative of cord tethering (the tip of the conus normally lies between T12/L1 and L1/2).
Axial T2 image (below left) demonstrates the two hemicords (arrows) within a single dural sac, without obvious intervening fibro-osseous spur. In addition to the split and tethered cord, a vertebral body (“butterfly” type) anomaly is present at T12, contributing to the scoliosis (image below right).