Combination of the Spina Bifida, Sprengel's Deformity, and Situs Viscerum Inversus

Dmitry Zharkov and **Stanislav V Ivanov**
G.I.Turner National Medical Research Center for Children's Orthopedics and Trauma Surgery, Russia.

Background: The combination of Sprengel's deformity with various types of spina bifida and internal organ development anomalies, such as situs viscerum inversus (inverse or mirror location of internal organs), is a rare case. The etiology of these malformations is unknown, but their combination may suggest common pathogenesis and cause. The work aimed to review the literature and describe a clinical case of a patient with multiple malformations of the spine and spinal cord along with unilateral Sprengel's deformity and situs viscerum inversus.

Materials and Methods: A 4-year-old patient was diagnosed with myelomeningoradiculocele of the lumbosacral spine, malformation of the spine by the segmentation impairment type of C7–Th1, Th1–Th2, and Th2–Th3 vertebrae, nonclosure of the arches of the C5–T2 and T12–S5 vertebrae, S-shaped congenital scoliosis, condition after surgical removal of myelomeningocele of the lumbosacral spine, concrescence and hypoplasia of ribs 1, 2, and 3 on the right, severe right-sided Sprengel's deformity, and situs viscerum inversus.

Conclusions: The case description of concomitant malformations contributes to clinical material accumulation and further research in determining the factors of etiopathogenesis. Understanding the processes of pathoembryogenesis in combined malformations of the musculoskeletal system allows early suspicion and identification of latent deformities.

Biography

Dmitry Zharkov, Candidate of Medical Sciences, working at the G.I.Turner National Medical Research Center for Children's Orthopedics and Trauma Surgery. He is a leading specialist in the treatment of Spina Bifida. Developed and implemented a system of a multidisciplinary approach in the treatment of patients with Spina Bifida in Russia.

e: zds05@mail.ru