

Congenital spinal deformity and associated anomalies

Mobini B (MD)

*Department of Orthopedics
Iran University of Medical Science*

Behtash H (MD)

*Department of Orthopedics
Iran University of Medical Science*

Ameri I (MD)

*Department of Orthopedics
Iran University of Medical Science*

Ghandhari H (MD)

*Department of Orthopedics
Iran University of Medical Science*

Corresponding Author:

Mobini B (MD)

E-mail:

drghandhari@yahoo.com

Abstract

Background & Objective: Congenital spinal deformities usually present in infancy and make parents worry about their child future. Because of congenital nature of these deformities, cord anomalies and other organ abnormalities must be evaluated. This study was done to determine Congenital spinal deformity and associated anomalies.

Materials & Methods: This cross sectional study was done on 97 patients who referred to Shafa hospital in Tehran- Iran with congenital back deformities from October 2005 to January 2007. All patients were assessed with physical examination, spinal radiography, MRI, urinary system sonography and echocardiography.

Results: Mean age of patients at presentation was 81 month. 81 patients had congenital scoliosis and 16 patients had congenital kyphosis. Mean cobb angle was 52 degrees for congenital scoliosis and 70 degrees for congenital kyphosis. 22 patients had neurologic or skin signs that 81% of them had cord abnormalities ($p < 0.05$). Cord anomalies were seen in 36 scoliosis (46.5%) and 2 kyphosis (15%) ($p < 0.05$). Most common cord anomalies were syringomyelia, diastematomyelia and tethered cord. Congenital heart anomalies was seen in 3 patients (4%) and valvular heart disease in 10 patients (13.5%) and kidney anomalies in 7 patients (12%). Only one patient with congenital heart disease and one patient with kidney anomaly had kyphosis.

Conclusion: Regarding to prevalence of congenital spinal deformity (CSD) in scoliosis and kyphosis patients, all of patients with CSD should screened for determination of congenital anomalies by MRI, Eco cardiography and kidney sonography.

Key Words: Congenital spinal deformity, Heart anomaly, Cord anomaly, Kidney anomaly