



The Incidence of the Pathologies Associated with Spina Bifida

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Author Disclosure Information

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Purpose

- Skeletal deformities may accompany spina bifida (SB) as well as spinal and neurological pathologies.
- Due to the improvement in the patient care services and in the surgical procedures, there is a higher rate of survival in SB.
- Thus, orthopaedic and spinal disorders are encountered more frequently anymore.
- In our study, we aim to evaluate the accompanying anomalies in the children with SB.

Methods

- Three hundred and fifty five (191 girls and 164 boys) of the 481 patients who admitted to our outpatient clinics between 2005 and 2012 and whose medical records could be reached were included in this study.
- The mean age was 12.8 (range 1-42) years.
- The patients were evaluated in terms of accompanying orthopaedic, neurological and spinal disorders.

Patients	355
Girls	191
Boys	164
Age	12.8 (1-42) y

Results

- The incidence of hip disorders was found.
 - 32.1% (114 patients)
- The incidence of foot deformities was 53.2% (189 patients).
 - Pes equinovarus
 - Vertical talus
 - Pes cavus
- The incidence of the deformities associated with the knee joint
 - 11.5% (41 patients)
- The incidence of scoliosis
 - 19.4% (69 patients)
- The incidence of lumbar kyphosis
 - 8.7% (31 patients)
- Incidence of sacral agenesis
 - 3.4 % (12 patients)
- A ventriculo-peritoneal shunt was applied
 - 20% (71 patients)
- Undergone neurosurgical operations before
 - 18.6% (66 patients)

	Number of Patients	Percentage (%)
Hip Disorders	114	32.1
Foot Deformities (pes equinovarus, vertical talus, pes cavus)	189	53.2
Knee Joint	41	11.5
Scoliosis	69	19.4
Lumbar Kyphosis	31	8.7
Sacral Agenesis	12	3.4
Ventriculo-peritoneal shunt	71	20
Neurosurgical Operations	66	18.6

Discussion

- Spina bifida is a complex congenital anomaly that requires multidisciplinary approach and in which orthopaedic, neurological and genitourinary anomalies may accompany.
- In our study, we have observed foot deformities (53.2%) the most. Hip problems (32.1%), scoliosis (19.4%), knee joint disorders (11.5%), kyphosis (8.7%), osteomyelitis (4.2%) and sacral agenesis (3.4%) followed it.
- Detailed description of the accompanying orthopaedic anomalies and multidisciplinary approach may be useful in the treatment of the patients with SB.