POSTEROLATERAL KYPHOSIS DUE TO FORMATION DEFECT

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GENERAL CONSIDERATIONS

Those cases which manifest a kyphotic form out of congenital spinal deformities arc those with risk in view of paraplegia especially when they have a kyphotic angle of 90 degrees or more.

The case presented here, was defined to be a case of congenital kyphoscoliosis Type I with 35 degrees of scoliotic and 55 degrees of kyphotic curvatures and which presented a formational defect at **TIL**

Because the congenital deformity took a course with incomplete paraplegia when the patient reached an age of 11 years the symptoms were corrected with anterior decompression and fusion, and it was considered to be worth presenting due to the fact that a fibrous band which constricted the cord was encountered with on the apical cord during operation.

Congenital spinal deformities may be classified according to the type of deformity. These may be scoliosis, kyphosis, lordosis or a combination of the above. From the anatomical malformation point of view, they may be categorized in three different types like segmentation defect, formation defect, and mixed defect.

In the treatment of congenital spinal deformities, a controlled orlhotic treatment may be instituted with Milwaukee brace if the apeks of the curve is over the thoracolomber region or almost over it. This condition is valid in scoliosis. No orthotic treatment may be effected in congenital kyphosis or lordosis.

Progressive curvatures are treated surgically. Posterior spinal fusion is the basic treatment without instrumentation. It is known that Winter et al. have obtained good results with posterior spinal fusion even in children under 5 years of age. In some cases anterior and posterior convex hemiarthrodesis is the treatment of choice.

In congenital kyphosis particularly in Type I, which is due to formation deficiency, complete or incomplete paraplegia may be confronted with. Under this condition decompression and fusion should be added.

In such cases, there may be anterior tension and compressive structures; shortened and thickened anterior longitudinal ligament, annulus fibrosus and abnormal cartilaginous material replacing incomplete bone. Traction should absolutely be discarded, as a high incidence of paraplegia is reported.

OUR CASE AND SURGICAL TECHNIQUE

Our case is a girl (N.C), 11 years old. Her deformity was first noticed by her parent when she was 6, at which time the patient was given a Milwaukee brace and followed-up. The patient was later lost to follow-up. When she came for control at the beginning of 1989, she was recommended that she should have an operation, as the patient who was hospitalized on March 10, 1989. In our clinic was diagnosed to have severe iron-deficiency anemia due to ascariasis, she was treated for 5 months to eliminate this deficiency, during which time she was observed to develop incomplete paraplegia. The patient was immediately re-hospitalized for surgery.

In radiological examination : It was observed that apical vertebrae conformed with Til, in association with vertebral and costal anomilies in the thoracolumbai region. Tl was also noted that Tl 1 had a formational deficiency. Measurement revealed that there was a scoliotic curvature of 35 degrees to the right as well as a kyphotic curvature of 5 degrees. On myclographic examination apical region was observed to be partially blocked.

Anterior decompression and fusion was indicated surgically, as lower medullary involvement was established upon neurosurgical consultation. Because the

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seoliotic curvature was to the right, access was gained via transthoracic intervention following the removal of the 9th rib, after which the apex of the curvature was detected by external compression, hemicorpectomy was performed on the T10,l 1,12 vertebrae, and spinal cord was decompressed anteriorly. As the spinal cord was observed not to be completely decompressed in spite of hemicorpectomy careful investigation was effected on the cord, in consequence of which it was seen that a fibrous band 2-3 cm long constricted the spinal cord. With an extremely careful dissection, the band was removed without exposing dura, at which time the cord was observed to be releazed and pulsatile again, Grafts obtained from the right fibula and the rib were placed, followed by the insertion of thoracic tube, the operation being completed following the closure of the thoracic cavity.

The patient whose incomplete paraplegia started to improve after postoperative 2 days, was discarccd with her paraplegia beign completely healed.

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