treatment are the keynotes to success in this very serious abdominal emergency.

Summary

The anatomy, pathology, and aetiology of mesenteric vascular occlusion are described, and some of the literature is reviewed.

Symptomatology and diagnosis are considered, and a plea is made for the earlier recognition of the disease. The importance of signs of cardiac, vascular, or blood disease, or of any evidence of haemorrhage from the bowel, is stressed.

Two personal cases, with recovery, are presented.

Treatment is discussed and the possibilities of the use of heparin are considered.

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MYOPATHY WITH SPINA BIFIDA

BY

RONALD G. PALEY, M.B., M.R.C.S.

Capt., R.A.M.C.

The following is an unusual and interesting case of myopathy associated with spina bifida.

Case History

The patient was a soldier, aged 30, formerly a country bus-driver. His paternal grandfather lived to a healthy old age. His father died of ? meningitis at 28; his mother at 45 from "tumour" of the uterus. He had no brothers, but there were two half-sisters by the same mother, both healthy. The patient had no knowledge of any familial disease.

In childhood he had no serious illness, but at school he noticed weakness of his legs. He became a gardener, but found the work too hard. In February, 1941, he had pneumonia and was in bed five weeks. During a protracted convalescence there was increased weakness, with wasting of the muscles of the chest and abdomen. For the last two and a half years the condition had steadily progressed. At no time had his muscles been bulky.

His height was 65½ in. (1.66 m.). His face was thin and expressionless, and wasting of the muscles of the shoulder-girdle and winging of the scapulae were present. There was no wasting of the forearm or small muscles of the hand. Active and passive movements were free and power good. Marked wasting of the erector spinae was obvious (see figs.). The abdomen was scaphoid, with wasting of all muscles except the erector abdominis. The muscles of the pelvic girdle all showed pronounced wasting; those of the lower leg and foot were not wasted, but there was a mild pes planus. Movements were full and power only slightly reduced. No muscular fibrillation was observed.

The spine showed scoliosis and a depression in the region of dorsal vertebrae 11 and 12, with a palpable gap. In this depression there was a non-hairy, non-pigmented mole. Radiographs confirmed non-union of the posterior arches of these two vertebrae.

The blood W.R. was negative, the C.S.F. normal and W.R. negative, and the urine normal. No electrical reactions were taken. Although the cardiovascular system was normal, there was moderate tachycardia. The blood pressure was 120/80. Chest expansion was poor—only half an inch (1.25 cm.) in the nipple line. The breathing was almost entirely abdomino-diaphragmatic. Radiographs showed "some evidence of chronic bronchitis at the bases: diaphragmatic movements normal." All the cranial nerves were normal and all reflexes were present, although the abdominal reflexes were very weak. There was no sensory disturbance. No vasomotor or trophic changes were present.

Discussion

Exhaustive search through the literature of the last 25 years revealed only one other case of this association of conditions. Urechia and Dragomir (1942) described a case of myopathy

with a spina bifida occulta of the first sacral vertebra. With respect to the regions of muscular atrophy and the absence of sensory disturbance their case resembled the one now reported. In certain features it was different: there was a heredo-familial trait, one sister and a nephew suffering from myopathy. A hypertrophic stage had occurred. The progress of the disease was more rapid, and the patient was bed-ridden at the age of 25. Their case was remarkable for a large pigmented hairy mole covering the right half of the abdomen.

The location of the bifida in the thoracic spine is not common. Wheeler (1920) found no evidence of spina bifida in 3,000

FIG. 1.

FIG. 2.

thoracic vertebrae seen at the National Museum, Washington. Hadley (1941), examining a series of 1,500 consecutive spinal cases, found 3 instances of spina bifida in the thoracic region.

It is interesting to note that in the literature over the same period there are two recorded cases of spina bifida associated with a different form of muscular atrophy. In 1925 Guillaing, Mathieu, and Garcin described a case of Charcot-Marie muscular atrophy with spina bifida of the first two sacral vertebrae. Heuyer, Hurez, and Feld (1942) reported a similar case.

It is difficult, if not impossible, to decide whether the occurrence in the same patient of two uncommon pathological conditions (myopathy and spina bifida) is due to chance concurrence or to some common aetiological factor—e.g., genetic make-up. Urechia and Dragomir (1942) quote numerous authors who have described various osseous deformities in cases of myopathy. Nevertheless during the last 25 years this particular association has been noted only once before in the literature on myopathies. This suggests that chance concurrence is the more likely explanation.

Summary

A case of myopathy with spina bifida is reported. The literature has been examined. One other reported case has been discussed and compared. The comparative rarity of spina bifida in the thoracic region has been noted. The association of the two conditions is thought to be a coincidence.

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The Hospital Survey and Construction Act of the United States, which authorizes the nation-wide building of hospitals, requires that standards for the construction of all those built with Federal assistance under this scheme shall be defined by the U.S. Public Health Service. These standards, which are minimal, were recently drafted; the Federal Hospital Council has now accepted them. They fall into five classes: site, architectural, structural, mechanical (e.g., ventilation, plumbing, electrical fittings), and drawing specifications.