Medical Memoranda

Myopathy Developing in a Case of Hodgkin's Disease

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Myopathy developing in association with carcinoma, particularly carcinoma of the bronchus, has become increasingly recognized in recent years. The development of myopathy in the reticulosos has been much less frequently recognized, and because of this it was thought that the following case would be of interest.

CASE REPORT

A woman aged 52 years was initially diagnosed as suffering from Hodgkin's disease in 1960 after the removal of a lymph node from her neck. Microscopy showed the typical histology of Hodgkin's disease. She was given a course of radiotherapy to her neck. In July 1963, when she was readmitted with a systemic illness and splenomegaly, she was given intravenous mustine hydrochloride. For six weeks before her present admission she had noticed increasing weakness of her lower legs, which made her unable to stand or walk. There was also considerable difficulty in sitting up from the lying position. At no time had she received corticosteroids.

On physical examination the patient was seen to be a thin, jaundiced, middle-aged woman with generalized muscular wasting, particularly marked in the scapular muscles. There was objective evidence of weakness of hip movements, particularly flexion. Sitting up from the lying position was impossible without the aid of her hands. The tendon reflexes were normal and there were no sensory abnormalities. She had hepatomegaly of 4 in. (10.2 cm.) and splenomegaly of 3 in. (7.6 cm.) but no lymphadenopathy. The results of examination of the cranial nerves, and of the respiratory and cardiovascular systems were normal. Intravenous edrophonium chloride (Tensilon) produced neither subjective nor objective evidence of increased muscular strength.

The results of investigations were as follows: haemoglobin 9.1 g./100 ml.; W.B.C. 1,800/c.mm., normal differential, platelets 50,000/c.mm.; serum albumin 2.5 g./100 ml.; serum globulin 2.8 g./100 ml.; electrophoretic strip increased α_2 -globulin; blood urea 29 mg./100 ml.; Na=137 mEq/l.; K=3.7 mEq/l.; Cl=97 mEq/l.; serum bilirubin 9 mg./100 ml.; alkaline phosphatase 100 K.-A. units.

Electromyography was carried out by Dr. E. M. Allen with the following results: "The right deltoid and vastus medialis were explored with a concentric needle electrode. No spontaneous activity was recorded. The volitional interference pattern in both muscles was complete, but the muscle potentials were abnormally polyphasic and of short duration. Patches of normal activity were present in both muscles. Conclusion: myopathic changes present."

Muscle biopsy and histochemical studies were performed by Dr. A. G. E. Pearse. He concluded: "The biopsy was a drill biopsy of the left deltoid. It shows large numbers of small atrophic fibres with numerous central nuclei. There is increased cellularity of the interstitial tissues and some large unidentifiable nuclei are present.

Histochemical tests show regenerating fibres. Conclusion: Myopathic changes secondary to the main disorder."

COMMENT

Myopathy accompanying carcinoma of the bronchus was described by Henson *et al.* in 1954, the myopathic changes being most marked in the limb girdle and proximal limb muscles. Frequently the muscles of the lower limbs were first involved. Though there was frequently evidence of a neuropathy, either central or peripheral, myopathic changes could occur alone. Myasthenic fatigue, sometimes improved objectively with neostigmine, also occurred.

Myopathic changes have been reported by Arapakis and Jordanoglou (1964) in a patient with lymphosarcoma. Muscle wasting and weakness was marked in all four limbs and muscle biopsy showed severe degenerative changes. Rooke *et al.* (1960) described a group of patients with pulmonary malignancy in which muscular weakness of proximal muscle groups, particularly of pelvic girdle and thighs, occurred; muscle biopsy appearances were frequently normal. One of these patients had a reticulum-cell sarcoma of the lung. In our patient the diagnosis of myopathy was suggested by the history and physical examination, and confirmed by E.M.G. and muscle biopsy.

A wide range of neurological and psychiatric syndromes associated with the reticulosos has been described by Hutchinson *et al.* (1958), and included in their series were patients with Hodgkin's disease. Such syndromes could occur without direct involvement of nervous tissue or without evidence of spontaneous haemorrhages into nervous tissue. The development of the syndrome frequently indicated that the disease was about to develop rapidly. In our patient there is no doubt that the myopathy developed at a time of severe exacerbation of the primary disease.

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