



Acute Myositis

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Abstract

Two cases of acute myositis characterized by intense muscle pain, weakness, myoglobinuria in one and muscle biopsy showing inflammatory changes in both with good recovery are described. It is reported because of the rarity of this condition. ©

INTRODUCTION

Acute infective myositis is a benign condition usually caused by virus infections and rarely by other organisms.¹ Malaise, myalgic pain with weakness and complete recovery over a period of few weeks are the salient features.² There is hardly any Indian literature available on this disorder. We report two cases of acute infective myositis in this paper.

CASE No. 1

A thirty-eight year old laborer reported to our department with pain all over the body and weakness of all four limbs following fever for ten days. Examination revealed normal higher functions, cranial nerves with moderate degree weakness of all four limbs and severe muscle tenderness with retained tendon reflexes. There was no involvement of sensory, pyramidal or cerebellar systems. The colour of urine was red and output was normal. The basic investigations are given in Table 1. The muscle biopsy showed necrosis of muscle fibres, aggregation of lymphocytes in the necrosed muscle fibres, suggestive of inflammatory myositis with rhabdomyolysis. Based on the clinical picture, laboratory findings and biopsy report, acute myositis probably of viral etiology was diagnosed. He was treated for myoglobinuria with adequate supportive measures. He recovered well over a period of two weeks.

CASE No. 2

A sixteen year old male admitted with weakness of all four limbs with severe muscle pain following fever for two days. Examination showed tender, swollen calf muscles and weakness of all four limbs with retained reflexes. The other systems were normal. The investigation results are given in Table 1. As the muscle pain was unbearable he was given injection

Table 1

Investigations	Case No. 1	Case No. 2
TC, DC, ESR, Hb	Normal	Normal
ECG	Normal	Normal
Anti-nuclear antibody	Negative	Negative
Blood Widal	Negative	Negative
Leptospirosis	Negative	Negative
Renal parameters	Elevated	Normal
Urine myoglobinuria	Present	Absent
CPK	11,200 IU/L	409IU/L
Electromyography	Myopathic Pattern	Myopathic Pattern
Nerve conduction study	Normal	Normal
Muscle biopsy	Myositis	Myositis

methylprednisolone 500 mg intravenously for three days. The muscle biopsy showed inflammatory myositis. He recovered completely within a week.

DISCUSSION

Both the patients had acute painful muscle weakness following nonspecific febrile illness. The motor weakness with retained reflexes was associated with severe muscle tenderness and myoglobinuria in one of them. Some element of the muscle weakness might have been due to the muscle pain. However there was a definitive direct muscle involvement as evidenced by markedly raised CPK and the abnormal EMG studies in both patients, which was confirmed by muscle biopsy showing inflammatory and necrotic changes. In view of the preceding history of fever and good recovery within two weeks, a self limited acute myositis probably following a viral infection was diagnosed. Viral studies were not done due to unavailability.

Viral infections of the muscle represent the common acquired infectious myopathies. It is usually benign and short lived. The acute syndrome comprises, benign acute myositis, acute rhabdomyolysis and epidemic pleurodynia.² Acute myositis can be epidemic or sporadic, caused by influenza A, B and parainfluenza viruses.³ The muscle weakness follows the initial

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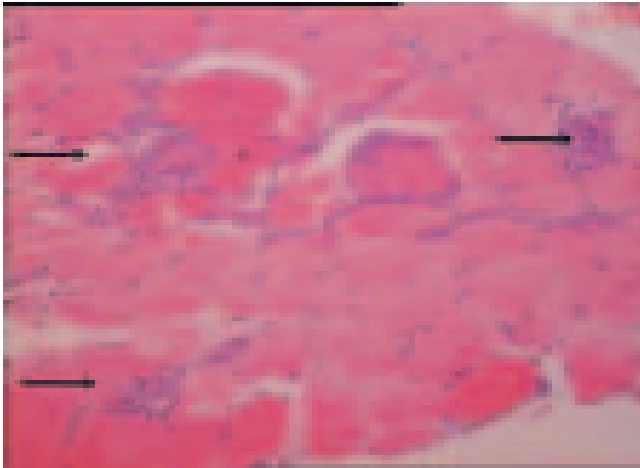


Fig. 1 : Transverse section of skeletal muscle stained for H and E showing variation in diameter and presence of several necrotic fibres with rhabdomyolysis (arrows).

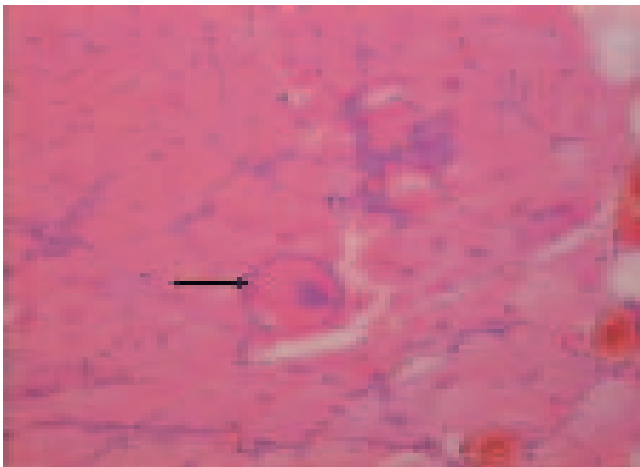


Fig. 2 : Higher magnification of a portion showing necrotic fibre with myophagocytosis (arrow).

syndrome of influenza by a few days. Typically both calves are affected, last for five to seven days.³ In adults in addition to muscle tenderness rhabdomyolysis can also occur resulting in myoglobinuria which if severe can be fatal.^{4,5} A number of different viruses including Echo, coxsackie, adeno, influenza and herpes viruses are known to produce muscle necrosis due to the involvement of mitochondria resulting in defective fatty

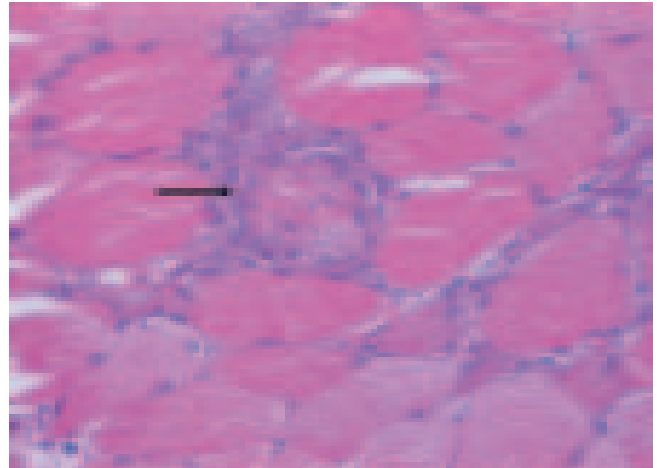


Fig. 3 : High magnification to show rhabdomyolysis.

acid metabolism.⁶ Epidemic pleurodynia, a syndrome of painful trunk muscles, is notably associated with coxsackie B5. It occurs in outbreaks affecting children, rather than adults.²

These two cases are reported because of rarity. Acute infective myositis should be considered whenever a patient presents with acute painful muscle weakness with retained reflexes following a febrile illness. Most cases are benign, short-lived and may respond dramatically to supportive treatment. The myoglobinuria and renal failure needs specific therapy.

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