CASE REPORT

Acute focal myositis causing significant radiological and histological abnormality settles spontaneously with expectant management

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SUMMARY

We discuss two cases of reactive focal myositis that had different clinical presentations but responded well to conservative management. These cases demonstrate that reactive myositis can present acutely but resolves quickly with expectant treatment and has a favourable prognosis.

BACKGROUND

Recognition of the acute clinical, biochemical and radiological features of focal myositis and raising awareness of the self-limiting clinical course with expectant management.

CASE PRESENTATION

Case 1

A 29-year-old doctor presented to our department with a 4-day history of non-productive cough associated with intermittent fever for which he took paracetamol. He was also applying Gentacin ear ointment for left-sided otitis externa. His main concern was the development of muscle weakness in his forearms, progressive in nature over a period of 4 days with difficulty in writing or performing daily activities (dressing). On examination grip strength was reduced in his hands. Power in both upper limbs was reduced to 4/5 proximally and distally but a neurological examination was otherwise normal. He also had evidence of tinea corporis in the left ear.

Case 2

A 45-year-old doctor presented with a 4-day history of pain in left-mid infraclavicular region associated with a temperature of 38°C. She denied any history of trauma or ill health prior to this episode. She noticed some improvement in symptoms with diclofenac. On examination she had a tender, firm, non-circumscribed subcutaneous swelling over the infraclavicular area.

INVESTIGATIONS

Case 1

Initial investigations revealed creatine kinase (CK) levels of 3418 with C reactive protein (CRP) of 14, normal full blood count, liver function test and renal function. Autoantibody screen was negative. Urine dipstick, viral serology, electromyography and nerve conduction studies were all unremarkable. MRI showed increased signal intensity in flexor muscles in both forearms suggestive of myositis (figure 1).

Case 2

Investigations revealed raised CRP levels of 105 with normal full blood count, renal, liver functions, bone profile, thyroid functions, immunoglobulins and CK levels. (CK levels remained normal throughout.) Plain imaging of the sternoclavicular joint and a chest X-ray was normal. An ultrasound showed diffuse increased echogenicity of the subcutaneous tissue and pectoralis major muscle while MRI of the thorax showed evidence of focal myositis affecting predominantly the pectoralis major muscle. Full thickness biopsy of the anterior chest wall revealed local panniculitis of the subcutaneous tissue and myositis involving the pectoralis major muscle. Urinalysis was normal. Viral screen was normal and culture of tissue biopsy did not reveal any organisms (figure 2).

TREATMENT

Case 1

Symptoms resolved spontaneously and fully in 2 weeks and were mirrored by normalisation of CK levels.

Case 2

The patient was treated empirically with augmentin/flucloxacillin in view of the systemic features of recent fever although no focus of infection was identified. Complete resolution of symptoms occurred within 2 weeks with normalisation of CRP levels.

Figure 1 MRI showing increased intensity in flexor muscles of both forearms.

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Figure 2 MRI thorax shows focal myositis affecting pectoralis major muscle.

DISCUSSION

The classic symptoms of viral myositis include an acute onset of pain and muscle tenderness with elevation of CK levels and generally recovery occurs within a week. Elevation of the CK level is highly variable and indeed CK levels can remain normal as depicted in our second case. The muscle MRI and muscle serum enzyme evaluation are useful tools for diagnosis, which must be confirmed by muscle biopsy examination.^{1–3} Differential diagnosis should include neoplasms, particularly soft-tissue sarcomas, infection, ischaemia, trauma and vasculitis. Many case reports have been published and several other names have been used since the first description, including localised nodular myositis, focalised interstitial polymyositis, interstitial nodular myositis and focal nodular myositis. Both our patients had acute focal muscle pain following non-specific febrile illness with radiological features consistent with focal myositis. This was confirmed by biopsy findings in one patient. In neither of the

patients was a focus of infection identified. Both patients were treated conservatively and symptoms and acute phase markers resolved rapidly. In view of the preceding history of fever and good recovery within 2 weeks, a diagnosis of self-limiting acute viral myositis was made.

We present these two cases to highlight the clinical and radiological features of an acute but uncommon illness which has a favourable outcome. CK levels can vary from being normal or mildly elevated to being markedly elevated. Clinicians should consider reactive myositis as a diagnosis in patients presenting with muscle pain and weakness following a febrile episode, while also bearing in mind that despite the significant laboratory and radiological features, expectant treatment is appropriate.

Learning points

- ▶ Reactive focal myositis is an acute but uncommon illness which should be considered by clinicians if patients present with focal muscle pain following an acute illness.
- ▶ It responds well to conservative/symptomatic management with a favourable prognosis.

Competing interests None.

Patient consent Obtained.

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