# SHORT REPORTS

## Myokymia, not myotonia

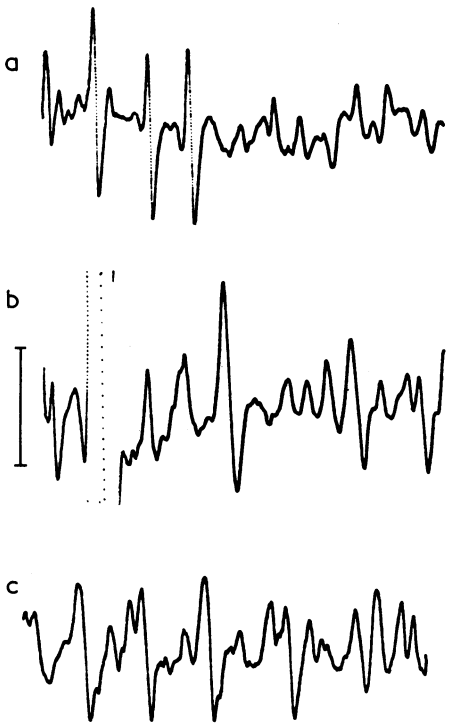
We wish to make a preliminary report of a case of myokymia with sustained muscular contraction and continuous motor unit activity at rest. We do so for two reasons. It is a new case in a very rare group of disorders. It is also essential to distinguish this type of disorder from the myotonias.

### Case report

In June 1976 a 26-year-old man was admitted for investigation. He had enjoyed perfect health until 1971, when he experienced increased difficulty in playing the guitar. His manual dexterity deteriorated further while he was in Nigeria, where myotonia was diagnosed. He contracted infective hepatitis and returned to London in 1973. He now had great difficulty in relaxing his limb and facial muscles, but within 24 hours of treatment with carbamazepine felt almost total relief from these symptoms. In 1974 he was told he probably had dystrophia myotonica. By this time, within six hours of omitting a dose of carbamazepine, he experienced difficulty with breathing, walking, and speaking, and had to perform any movement several times before losing the sensation of stiffness. He had never experienced weakness, painful cramps, or sensory symptoms. There was no family history of a similar disorder, but, his wife being pregnant, he was worried by the genetic implications of his condition.

He was a fit man of normal build, posture, and muscle bulk. There was no sign of hyperthyroidism, no frontal balding, and his genitalia were normal. No excessive sweating was noted. Examined while he was taking carbamazepine, 200 mg twice daily, muscle power and tendon reflexes in the limbs were normal, but tone in all limbs was uniformly increased. There was a continuous, undulating movement in his muscles, especially the deltoids, quadriceps femoris, and the tongue. Within a few hours of discontinuing medication, the spontaneous abnormality of muscle movement with the patient at rest became more obvious. It differed from fasciculation in that the contraction rippled along the muscle down the same route repeatedly, and occurred regularly within the same area of muscle; it was coarser than the contractions typical of fasciculation. He became slightly dysarthric, and was unable to relax his grip other than very slowly. There was no percussion myotonia either in the thenar eminence or in the tongue. The result of sensory examination was normal.

The results of routine investigations were normal, and in particular the following: plasma potassium, magnesium, and thyroxine; serum calcium; blood glucose, random and fasting; and cerebrospinal fluid. Off carbamazepine, his $FEV_1$ was 5·11 and FVC 6·21. Serum creatine phosphokinase was 18 U/l (upper normal) but serum hydroxybutyrate dehydrogenase was 308 U/l (normal 140 U/l). Slit lamp examination showed no cataracts. Electromyography (EMG) with a concentric needle electrode showed continuous electrical activity in all muscle groups. This was suppressed after exercise for 30 to 60 seconds. The constituent potentials were typical normal motor unit potentials, quite distinct from myotonic discharges. From other EMG findings (fig) it appears that the spontaneous unit activity was of peripheral origin.




Surface recorded EMG from 1st dorsal interosseous muscle of right hand with variable spontaneous activity. (a) Large unit potentials observed firing irregularly. Activity is of peripheral origin because: (b) maximal stimulation of ulnar nerve caused no silent period, and (c) bupivacaine block of the ulnar nerve, reducing voluntary power by 75%, showed no effect. Calibrations: 500 $\mu$V and 25 ms.

### Comment

The EMG confirmed our clinical impression of myokymia rather than myotonia. The spontaneous, continuous motor unit activity in a muscle at rest is the one constant diagnostic feature of what clearly appears to be a heterogenous group of disorders. Even the EMG findings vary slightly among the cases reported.[1 2] Individual clinical features, as reviewed by Welch, Appenzeller, and Bicknell,[2] are even more variable. The prognosis of the group as a whole is good,[2] and the response of our patient to carbamazepine augers well for his future. He was extremely relieved to shed the diagnosis of dystrophia myotonica. His return to Africa meant the postponement of further investigations.

We thank Dr H E Webb for permission to report on this patient.

[1] Gardner-Medwin, D, and Walton, J N, *Lancet*, 1969, **1**, 127.
[2] Welch, L K, Appenzeller, O, and Bicknell, J M, *Neurology*, 1972, **22**, 161.

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## Atypical infectious mononucleosis with bone marrow granulomas and pancytopenia

Bone marrow granulomas rarely complicate infectious mononucleosis. The nature of this case remained obscure until the patient's daughter had a febrile illness with typical glandular fever blood count and positive result to the Paul-Bunnell test.

### Case report

A 39-year-old man presented with a 10-day history of malaise, severe headache, weight loss, and fever. His temperature was 40°C and he had no glandular enlargement or palpable spleen. Blood count: haemoglobin 13·9 g/dl; erythrocyte sedimentation rate (ESR) 16 mm in 1 h (Westergren); leucocytes $4{\cdot}8 \times 10^9$/l (4800/mm$^3$), neutrophils 37%, lymphocytes 62%, monocytes 1%. Neutrophils showed a left shift, with a few Turk cells present.