

Image of the month: Myositis and metastatic melanoma

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A 70-year-old man with known metastatic melanoma presented with a widespread rash and feeling generally unwell, two weeks after starting treatment with vemurafenib (a BRAF inhibitor). The symptoms improved after discontinuing the treatment but he went on to develop a Bell's palsy after it was recommenced. Following completed recovery, the medication was restarted for a third time.

Four to six weeks later the patient developed a proximal myopathy and an elevated creatine kinase of 30,000 IU/l. In addition, he had myoglobinuria, renal impairment and jaundice with deranged liver function tests. He was diagnosed with rhabdomyolysis. Cessation of therapy on this occasion led to clinical recovery and normalisation of the biochemical features. He had a normal blood muscle antibody screen and electromyography confirmed proximal limb myopathic changes. A muscle biopsy was not undertaken as it was felt that this myositis was most likely due to the effects of vemurafenib. On stopping the drug his clinical features and biochemical abnormalities resolved.

Vemurafenib is a biological BRAF inhibitor specifically targeted against the serine–threonine kinase enzyme. It is licensed for use in BRAF mutation-positive or metastatic melanoma.¹ To the best of our knowledge, the muscle effects observed in this patient have not been previously reported for this class of medications. This patient experienced some of known adverse effects of this agent early in the course of treatment, such as VII palsy.² In one phase III study of vemurafenib, 38% of patients required dose changes because of side effects.³

At presentation, a whole body MRI was performed (Fig 1). Melanoma metastases were seen in the left humeral head (long white arrow) and spleen (short white arrow). There was symmetrical proximal active myositis with oedematous high signal in several muscle groups (long green arrows) compared with normal muscle signal (green arrowhead). ■

References

- 1 McArthur GA, Chapman PB, Robert C *et al*. Safety and efficacy of vemurafenib in BRAF(V600E) and BRAF(V600K) mutation-



Fig 1. Whole body magnetic resonance imaging (MRI).

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- 2 Datapharm. *Zelboraf 240 mg Film-coated Tablets*. Available online at www.medicines.org.uk/emc/medicine/26056 [Accessed 5 February].
- 3 Chapman PB, Hauschild A, Robert C *et al*. Improved survival with vemurafenib in melanoma with BRAF V600E mutation. *N Engl J Med* 2011;364:2507–16.

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