Bulky scalp melanoma with metastasis responding completely to ipilimumab

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DESCRIPTION

A 69-year-old man noticed a ‘pimple’ on the scalp vertex for the first time about 4 months prior to presentation. The lesion was associated with itching, bleeding and an accelerated growth noticed by his wife. Examination demonstrated a 6×7 cm fungating mass with numerous satellite lesions measuring 3–5 mm and associated alopecia (figure 1A). Right occipital and supraclavicular lymphadenopathy was also noted. Biopsy of the lesion revealed BRAF (V600K) mutated malignant melanoma with ulceration, high mitotic index and vascular invasion. Systemic staging with positron emission tomography (PET) and CT scans detected an avid 6 mm right lung nodule and a 1.5 cm mass in the right lobe of the liver (figure 1D). Primary cutaneous melanoma is generally approached surgically, however, presence of metastases and size of the lesion precluded surgical resection in this case. Hence, ipilimumab at 3 mg/kg every 3 weeks for four doses was started, which resulted in a remarkable reduction in the size of the primary melanoma and metastatic lymph node disease. Biopsy of the scalp performed 4 months after initiation of immunotherapy demonstrated only a scar at the primary site (figure 1B, C). Restaging with PET and CT scans at 7 months showed reduction in the liver mass to 9 mm (figure 1E) and resolution of the lung nodule. CT scan at 1 year showed complete resolution of metastases at all sites (figure 1F).
Learning points

- An important breakthrough in the treatment of advanced stage melanoma is immunotherapy. Immune checkpoint inhibitors, a category of immunotherapy, are now the mainstay of treatment of metastatic melanoma.
- Two key immune regulatory checkpoints include cytotoxic T-lymphocyte antigen-4 (CTLA-4) receptor and programme cell death 1 receptor. CTLA-4 outcompetes CD28 (expressed on T-cell surface) for binding CD80 and CD86 (expressed on the surface of antigen presenting cells), which leads to dampening of overall T-cell activation, keeping a check on collateral tissue damage from excessively activated T cells.1
- Ipilimumab, an anti-CTLA-4 monoclonal antibody, is the first in its drug class to potenti ate antitumour activity of T-cells by blocking this inhibitory pathway. It has demonstrated clinical activity against melanoma where overall response rate was shown to be 10.9% leading to its approval for advanced stage melanoma.2 In addition, response to ipilimumab therapy has shown to be prolonged and durable as reported by a large pooled analysis of several prospective and retrospective studies. An estimated 3-year survival rate of 22% was observed, irrespective of previous therapy, which extended up to 10 years in some patients.3
- This case demonstrates that immune checkpoint inhibitors such as ipilimumab have the potential to induce complete clinical remission even in metastatic disease.

Competing interests None declared.
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REFERENCES