Immunotherapy for Malignant Melanoma: Single Institution Experience
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Background
The advent of immunotherapy has revolutionised systemic anti-cancer treatment (SACT) for advanced melanoma. Pembrolizumab was accepted by the Scottish Medicines Consortium in November 2015 for treatment of advanced (unresectable/metastatic) melanoma in adults based on extended median progression free survival and overall survival compared with ipilimumab. Immunotherapy shows great potential for long-term control of cancer in some patients but it has novel immune-related toxicities compared with cytotoxic chemotherapy which are still not well-recognised in non-specialist settings.

Objectives
An audit of pembrolizumab monotherapy in metastatic melanoma was carried out to compare outcomes of NHS Highland patients with pivotal trial results (Keynote-006), including overall survival and toxicities. This work aimed to identify factors to predict positive/negative outcomes and improve cost-effective use of immunotherapy in malignant melanoma.

Method
Patients diagnosed with metastatic malignant melanoma in the period February 2016 to June 2018 were identified. Data was retrieved from the records of patients treated with pembrolizumab.

Results
33 patients were identified. The audit population comprised 17 patients who started treatment with pembrolizumab before June 2018, of whom 16 have at least one year’s follow-up. Approximately 50% of all identified patients were male and 30% were BRAF mutant. Median age was 67 years (range 41 to 86).

Toxicity outcomes
Toxicities occurred in almost all patients who received more than 1 cycle.

Analysis
Crude 1 year survival was 56%. Median survival was not reached at data censoring, with a maximum of 26 months follow-up. Outcomes:

- Early death
- Late death
- Progression - still alive
- Complete response
- Treatment ongoing

Chart 1: Outcomes composite
- “early death”: within 4 months of starting treatment
- “late death”: initial response, progressive disease, off-treatment death

Discussion
Performance status >1 and/or presence of brain metastases correlated with poorer outcomes. Cost-effective use of immunotherapy for this indication has improved because of better selection of those patients who are likely to live long enough to benefit from treatment.

Conclusions
Overall, results were comparable with the pivotal trial, taking into account limitations such as patient numbers and retrospective nature of the analysis. Four complete responses is a remarkable result in the setting of metastatic malignant melanoma.

References