



Effects of corticosteroid use on the treatment response of melanoma patients receiving ICIs

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BACKGROUND

In 2020, melanoma exhibited the 5th highest incidence rate of all cancers in the US. While metastatic melanoma only constitutes 4% of new melanoma cases, the 5-year survival rate of metastatic melanoma is only 27% [1]. Immune Checkpoint Inhibitors (ICIs) were the first drugs to significantly improve the 5-year survival of late-stage melanoma patients. These include ipilimumab (Yervoy®), nivolumab (Opvivo®), and pembrolizumab (Keytruda®). These are all human, monoclonal antibodies that combat the immunosuppressive milieu of tumors [2]. Agarwal et al. recently demonstrated that 38% of late-stage melanoma patients were prescribed glucocorticoids to alleviate the immune-related adverse events (irAEs) secondary to ICI use [3]; however, these patients were also shown to have reduced overall survival [4]. Therefore, it is important to elucidate the effects of immunosuppressive glucocorticoid use on the impact of ICIs, which function to stimulate the immune system.

ABSTRACT

This retrospective study aims to evaluate the effects of corticosteroid use on the overall treatment with ICIs among late-stage (stage 3 and 4) melanoma patients. Our preliminary data suggests that a majority of late-stage melanoma patients on ICIs experience irAEs, and that a majority of those patients require corticosteroids to manage their irAEs. We hypothesize that this will diminish ICI treatment efficacy in patients who are on higher doses (≥ 20 mg prednisone) or longer durations (> 21 days) of corticosteroids.

RESULTS

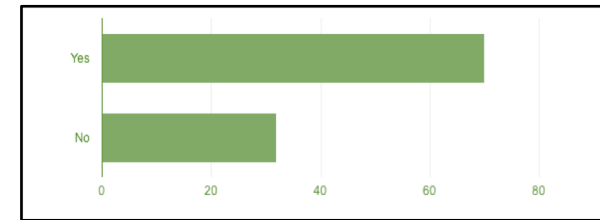


Fig. 1: 69% of patients on ICIs experienced irAEs.

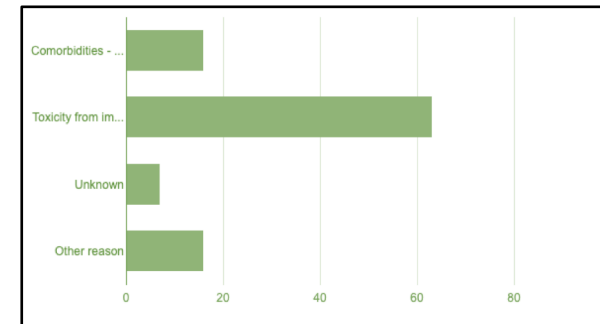


Fig. 2: 62% of patients on steroids were receiving steroids due to irAEs.

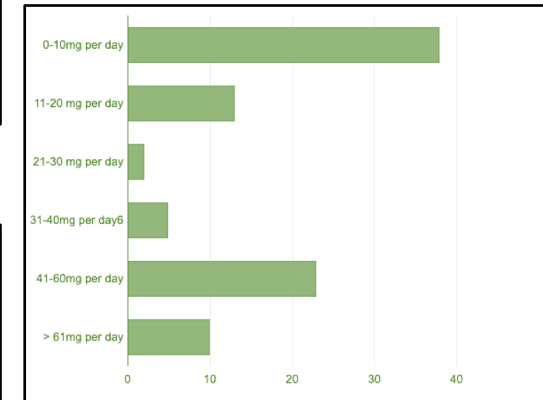


Fig. 3: 44% of patients on steroids were initiated on high-dose steroids.

References:

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