

# AB111. SOH23ABS\_013. Neoadjuvant immunotherapy for resectable clinical stage III/IV melanoma: a case series examining the preoperative journey

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**Background:** The current standard of care for stage I and II melanoma is surgical resection with wide local excision. For stage III and IV disease, treatment comprises surgery and adjuvant systemic therapy with immune checkpoint inhibitors or BRAF/MEK (mitogen-activated protein kinase kinase) inhibitors. A series of recent studies have indicated that neoadjuvant systemic therapy (NST) may have an important role to play in stage III and resectable stage IV disease.

**Methods:** Data for all patients who underwent NST for the treatment of stage III/IV melanoma in Cork University Hospital and University Hospital Kerry between June 2019 and December 2021 were collected. A review of hospital charts was conducted retrospectively and data were analysed thematically assessing pathological response, toxicity and patient survival.

**Results:** A total of 12 patients underwent NST during the 18-month period. Ten underwent immunotherapy with immune checkpoint inhibitors and two underwent BRAK/ MEK inhibition. Six achieved complete or near complete pathological responses. Of the patients who achieved near complete or complete pathological responses, none have relapsed to date. Three had partial or minimal pathological responses, all of whom required further treatment. Three had near complete or complete radiological responses and did not proceed to surgery. All later developed recurrences. Ten reported adverse immune responses in the neoadjuvant arm of treatment ranging from abdominal cramps, anorexia, diarrhoea and fatigue to anterior uveitis, dyspnoea, hypophysis and neutropenia.

**Conclusions:** We characterised the patients eligible for neoadjuvant immunotherapy or BFAF/MEK inhibition for melanoma and attempted to identify broadly recurrent themes throughout the cases. There is an apparent correlation between pathological response and progression free survival in the short term. Our data also suggests that radiological response is an insufficient indicator for survival and that surgery is critical for ensuring short term survival. **Keywords:** Immunotherapy; melanoma; neoadjuvant; survival; skin cancer

#### **Acknowledgments**

Funding: None.

### Footnote

*Conflicts of Interest:* The authors have no conflicts of interest to declare.

*Ethical Statement:* The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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#### doi: 10.21037/map-23-ab111

**Cite this abstract as:** O'Sullivan A, Power D. AB111. SOH23ABS\_013. Neoadjuvant immunotherapy for re-sectable clinical stage III/IV melanoma: a case series examining the preoperative journey. Mesentery Peritoneum 2023;7:AB111.