

# Definitive treatment with PD-1 blockade and radiation therapy of unresected primary desmoplastic melanoma of the nose

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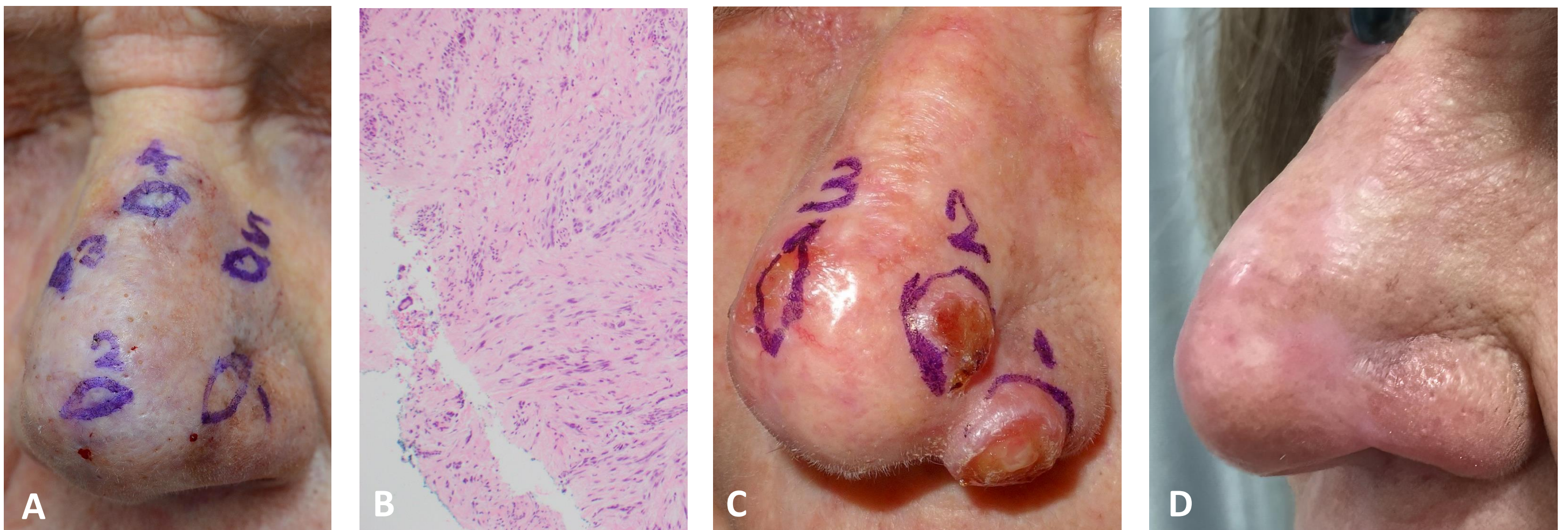
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## Background

Two patients, aged 74 and 82, with primary desmoplastic melanoma of the nose were treated with definitive anti-PD-1 checkpoint inhibition (PD1) and radiation therapy. While both patients were not technically unresectable, partial rhinectomies are morbidly disfiguring procedures, which both patients declined. Management was therefore discussed and agreed upon at our multidisciplinary team meeting.

## Results

Both patients responded to PD-1 blockade (pembrolizumab or nivolumab), which was temporary in the first case, and partial in the second. Both, therefore, underwent radiotherapy, each receiving 60Gy in 30 fractions which resulted in complete responses for both patients.



Patient 1. A poorly defined pure desmoplastic largely amelanotic melanoma in four of the five shown biopsy sites at baseline, prior to pembrolizumab (A). Histopathology showed an atypical spindle cell tumor diffusely infiltrating the dermis with associated stromal desmoplasia and scattered lymphocytes characteristic of desmoplastic melanoma (B). Progression with three new nodules after nine cycles of pembrolizumab, after initial response to PD-1, seven months after the initial diagnosis (C). Five years after radiation therapy demonstrating no visible tumour recurrence (D).

## Conclusions

These two cases describe the first use, to our knowledge, of anti-PD1 antibodies and radiation therapy as definitive treatment of primary desmoplastic melanoma with long-term follow up.

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