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# Taking a "U-TURN" on the road to treating a difficult depigmented lesion

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# Dear Editor,

A segmental white patch on skin is a common cosmetic concern among Indians, where differentiation between different types and causes of depigmentation is challenging. Segmental vitiligo is an acquired autoimmune condition causing unilateral chalky-white patches on the skin presenting a band-shaped distribution.<sup>1</sup>

Nevus depigmentosus (ND) is classically defined as a congenital nonprogressive, depigmented macule with serrated borders, which is mostly unilateral in distribution.<sup>2</sup>

An adolescent man presented to the outpatient department with a complaint of a depigmented lesion over the left side of his face for 6 years showing no regression/advancement in the last 6 years [Figure 1]. By studying the relevant history and on evaluation, a diagnosis of segmental vitiligo was made and the patient was offered a myriad of treatment options. Doctor and patient conclusively made the decision to go for surgical treatment and mini punch grafting was planned.

The grafts were extracted from the donor site (behind the ear) using 1.5 mm sized punch, and then placed over the recipient site and fixed using cyanoacrylate glue [Figure 2].

The patient was followed up every week for the first month after surgery, and thereafter every fortnightly. After 4 months post-op, it came to the authors' notice that although the graft "take-up" was proper, the repigmentation around it had not even begun slightly, although adequate treatment with daily psoralen and solar Ultraviolet A (PUVAsol) therapy was provided.

Upon reevaluating the case, the patient confessed that the depigmented lesion was in fact present since birth. This prompted the author to change the diagnoses to ND for which the suitable surgical option would be split thickness skin graft (STSG) or noncultured epidermal cell suspension (NCES).<sup>3</sup>

The difficulty was to provide sufficient color matching by performing one of these two surgeries while the mini punch grafts were still in place. To eliminate the risk of cobblestoning and mismatching altogether the author decided to remove the "in place" grafts by a similar process using 1.5 mm sized punch [Figure 3], following which the recipient area was given a rest period to heal for 8 weeks.

On the next follow-up, STSG surgery was planned for the patient, which is also considered the surgery of choice for ND.<sup>3</sup>

 $2 \times 2$  cm sized STSG were taken from the anterolateral aspect of right thigh; after derma abrading the recipient site, the grafts were transplanted over the recipient area. The patient was followed

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**Figure 1:** Segmental depigmented lesion over left side of face.



**Figure 3:** Removal of mini punch grafts placed over the recipient area using a 1.5 mm sized punch.



**Figure 2:** Mini punch grafts placed over the recipient area showing good uptake of graft but poor repigmentation over recipient area after 2 months follow-up.

up weekly for 1 month and fortnightly thereafter. After 3 months post-op, sufficient uptake and diffusing margins of repigmentation was noticed at the recipient site [Figure 4]. Donor site had also healed completely.

This case helped us review different surgical methods for the treatment of ND. Kim and Park<sup>4</sup> observed that suction-blister grafting provided satisfactory repigmentation in case of ND, whereas Olsson and Juhlin<sup>5</sup> observed no repigmentation when treated by transplant of a melanocyte-rich cell-suspension. Mini punch grafting, however, has been proved to be of little to no significance in ND according to past literature, which is also in concordance with the results observed in our case.

In conclusion, thorough history taking is always a doctor's best friend and a dermatosurgeon should never shy from



**Figure 4:** Recipient site showing good uptake and repigmentation post– split thickness skin graft 2 months post-op.

taking a "U-TURN" approach in today's times of uncertainty for the greater good of the patient.

## Authors' contributions

All the authors contributed to the research study. Yogesh M. Bhingradia: Data analysis, Statistical analysis, Clinical Studies, Literature search, Manuscript preparation, Concepts, Definition of intellectual content, Manuscript review. Heena B. Singdia: Design, Definition of intellectual content, Literature search, Clinical Studies, Experimental studies, Data acquisition, Data analysis, Manuscript preparation, Manuscript editing, Guarantor Akshay A. Vetal: Literature search, Manuscript preparation, Manuscript editing.

### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/ have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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# **Conflicts of interest**

There are no conflicts of interest.

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