



IADVL SIG Dermatosurgery (2019-2020), IADVL Academy

Patient education leaflet: Frequently asked Questions (FAQ's)

Vitiligo Surgery

Disclaimer: This leaflet has been produced to give you general information. Most of your questions should be answered by this leaflet. It is not intended to replace the discussion between you and your doctor, but may act as a starting point for discussion. If after reading it you have any concerns or require further explanation, please discuss this with a member of the healthcare team.

1. What are the various surgical options available for treatment of vitiligo?

There are a number of ways to transplant healthy melanocytes (Skin color producing cells) in patients with stable vitiligo, including: Punch grafts, Split thickness skin grafts, Blister grafts and Cellular grafts.

2. Who is a good candidate for vitiligo surgery?

Patients who have had stable vitiligo lesions for at least one year are good candidates to undergo surgery. Patients should fulfil the following criterion

- Existing patches should not have increased in size
- No new patches should have appeared on other areas
- Any injury should heal with normal skin colour.

Patients with segmental vitiligo, where the disease is limited to only one side of the body, appear to be excellent candidates for this procedure. These patients have a good outcome majority of the time, and they usually don't require any more treatments.

3. What is Miniature punch grafting (MPG)? When is this type of surgery preferred?

Punch grafting is one of the most commonly used surgical techniques, due to its simplicity and efficacy. Small portions of skin about 2 mm in diameter are punched out from the donor site on the thigh and placed on the donor site of vitiliginous skin, where recipient chambers have also been created by punches. This type of surgery can be used to cover small to medium sized white patches only (diameter around 5-7cm) and is usually not preferred when vitiligo patches are of large size.

4. How are the results of punch grafting? What are the advantages and disadvantages of MPG? What is the post-operative care required and possible complications?



Results of punch grafting are fairly good with usually no post-operative complications and rapid recovery time. The chances of graft uptake and repigmentation at vitiligo site are fairly high. Long term complications may include hyperpigmentation at recipient site, imperfect colour match, cobblestone appearance and peripheral depigmentation (halo effect).

5. **What is Suction blister grafting? When is this type of surgery preferred?**

In this technique, negative pressure is applied to the normally pigmented donor site (usually the thigh area) to promote the formation of multiple blisters. Blisters may be raised using syringes or suction cups. Once the syringes are applied on the donor site, it takes 1 to 2 hours for the development of blisters. The roofs of the blisters (the grafts) are subsequently surgically removed, cut to the appropriate size and shape, and transplanted onto the prepared recipient site. This type of surgery is usually preferred for small vitiligo patches only. Since the colour match is good, it is most commonly used for vitiligo patches on lips and face.

6. **How are the results of blister grafting? What are the advantages and disadvantages of blister grafting? What is the post-operative care required and possible complications?**

Good cosmetic results can be achieved with excellent colour match and no cobblestoning. However, it is a very time-consuming surgery and can be performed only on small areas of skin. Post-operative care involves strictly immobilisation of the surgical area to prevent any displacement of the graft. Possible complications include hyperpigmentation of the donor site (thigh) and a depigmentation halo around the graft. In rare instances, there may be failure of the recipient site to take up the grafted skin.

7. **What is split thickness skin grafting? When is this type of surgery preferred?**

This technique involves shaving off thin layers of skin from the donor site (usually thigh). The white patch on the skin is then removed very superficially and a very thin skin graft consisting of only the top most layer of skin with melanin pigment is applied over that. The area is then bandaged and strictly immobilised for 1 week to ensure good graft uptake. This type of surgery is usually preferred for larger white patches on covered areas like arms, legs and trunk since the colour match and resultant cosmetic appearance is not very perfect.

8. **How are the results of split thickness skin grafting? What are the advantages and disadvantages of split thickness skin grafting? What is the post-operative care required and possible complications?**



Split thickness skin grafting can cover fairly larger areas in a single surgery session itself. However, colour match with the surrounding skin is not usually perfect with transplanted skin usually showing hyperpigmentation. Thus, it is preferred for areas that are usually covered like arms, legs and trunk. Since large areas of skin are taken in a single session, the recovery time post operation is relatively longer with some patients reporting significant pain. Strict immobilisation of the grafted area is a must for 1 week at least to prevent any displacement and loss of the grafted skin.

9. What is Melanocyte-Keratinocyte Transplant Procedure? When is this type of surgery preferred?

It is a surgical procedure in which top skin layer of the white spots is removed, and healthy pigment cells (melanocytes) from another part of the body (usually front of thigh) are transplanted there. After a few months, the transplanted melanocytes start working to make pigment, which deposits in the surrounding white skin and helps in reducing the white patches. This type of surgery is preferred when white patches are spread over a large area or over cosmetically sensitive areas like the face since the colour match is excellent.

10. How are the results of Melanocyte-Keratinocyte Transplant? What are the advantages and disadvantages of Melanocyte-Keratinocyte Transplant? How long does the surgery take and what is the post-operative care required and possible complications?

This surgery can be performed in 1 to 3 hours as a day care procedure and usually does not require any admission. The treated site is protected by dressing for one week. Upon removal of the dressing, the treated area appears bright red. Re-pigmentation begins in 4 to 8 weeks and continues to progress up to 4 to 6 months post-surgery. Post-operative pain is usually moderate and can be managed by simple pain killers. The advantage of this procedure is that it allows large areas of the body to be covered in a single session itself. Further, this procedure results in excellent colour matching and so is preferred for any white patches over the face. However, the procedure is expensive and complex and usually time consuming.

11. Is a single session of surgery sufficient or do I need multiple sessions?

This entirely depends on the number and size of the vitiligo patches. Smaller patches in a limited number can be treated in a single session while larger and multiple patches may require more than 1 session. However, it is to be remembered that sometimes a single session may not lead to complete repigmentation of the white patch. There may residual areas of whiteness left even after a surgery that may need a second session later (usually after 6 months).

