SURGICAL MANAGEMENT OF LIP VITILIGO – A REVIEW

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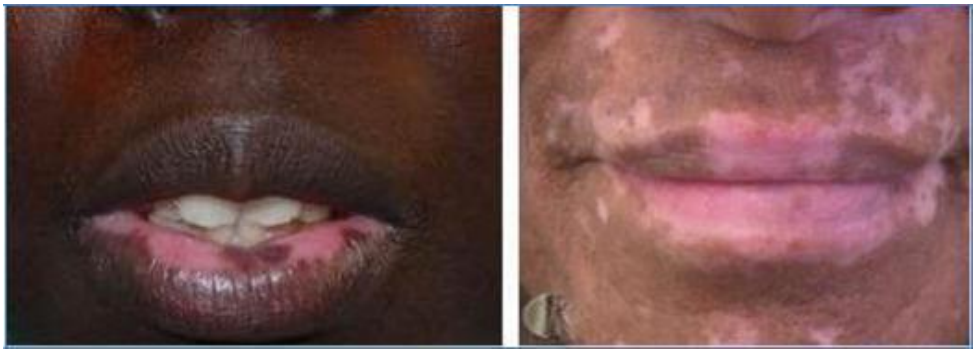
HOW TO CITE THIS ARTICLE:
N. Mariappan. "Surgical Management of Lip Vitiligo – A Review". Journal of Evidence based Medicine and Healthcare; Volume 1, Issue 11, November 17, 2014; Page: 1378-1382.

INTRODUCTION: Vitiligo is a common, genetic, autoimmune disease in which there is loss of pigment from areas of the skin resulting in irregular white spots or patches. The skin has normal texture. Vitiligo may appear at any age. People with generalized vitiligo are thought to have otherwise healthy immune system except for the specific immune response to the melanocyte.

Vitiligo is non-contagious. It is a result of a combination of genetic, immunologic, biochemical and neurogenic factors. The psychological and social effects of vitiligo are well documented. Mucosal vitiligo can occur as a part of generalized vitiligo or as an isolated condition.

Lip involvement is a common feature in dark skinned vitiligo patients with a reported incidence to vary between 20 to 50%. Most commonly, vitiligo involves the vermillion and spares the wet labial mucosa. An inverse pattern of involvement also occurs uncommonly. Involvement of only the most lateral part of the lip is also an uncommon presentation.

In acrofacial subtype of vitiligo, there is atypical involvement of the lips. Herpes induced isomorphic or Koebnerization can lead to lip vitiligo. Involvement of mucosa is considered to be an indicator of poor prognostic factor. Vitiligo surgery is recommended for selected, resistant vitiligo patches in patients with vitiligo.



Indications for vitiligo surgery: Surgery is indicated for stable vitiligo not responding to medical treatment.

Absence of progression of the disease for the past one year is the definition of stability. It is important to obtain consent regarding the procedure, possible complication and the limitation of the procedure and about future possible progression of the disease. With concomitant medical therapy the results may take a few months to one year to manifest.

Pre-operative la bora tory studies: Haemogram including bleeding time and clotting time, blood chemistry profile, HIV and hepatitis B screening as may be necessary.

Anesthesia: 2% Xylocaine is used for most procedures. General anaesthesia may be needed for extensive lesions.

Post-operative care: Proper post-operative immobilization and care is essential for good outcome.

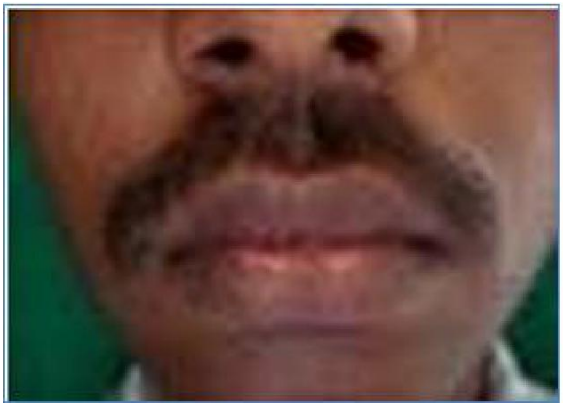
Vitiligo involving the lips is a depigmentation disorder of great cosmetic importance. It affects both social and psychological aspects of the patients. Basic pathogenesis of vitiligo still remains unknown. The results of medical treatment depend on the melanocytes reservoir and it is effective in only 60-70% of patients.

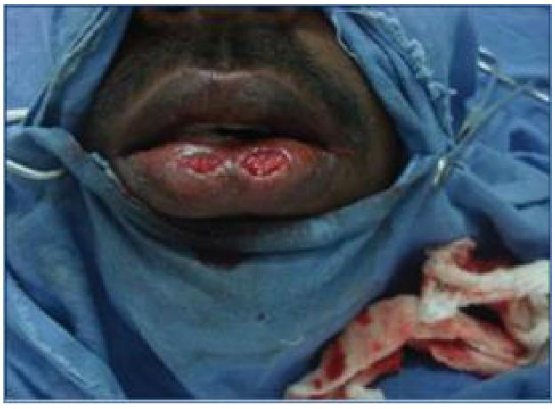
The surgical treatment of resistant vitiligo was first proposed in 1960s. Over the years it has expended to include surgical Biotherapies such as autologous cultured melanocytes transplantations. Involvement of lip is a great concern for the patients.

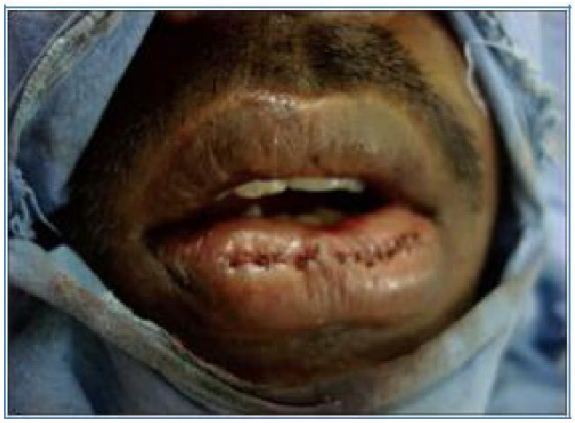
Surgical Options for Lip vitiligo:

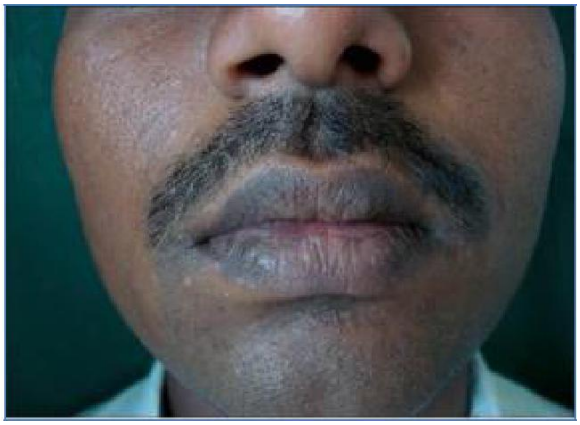
Surgical options include Grafts and Transplants	
Tissue grafts	**Cellular grafts**
· Mini punch grafting · Suction blister grafting · Thin split thickness grafting · Hair follicles grafts · Mesh grafts · Flip-top pigment transplantation	· Non-cultured basal cell suspensions · Cultured melanocytes / keratinocyte grafts

1. **Surgical excision and primary closure:** Small areas may be treated by surgical excision and primary closure.









2. **Mini punch grafts:** Small full thickness grafts are placed in the de pigmented area with PUVA to stimulate pigmentation [1].

Disadvantage: It results in cobble stone effect.

3. **Thin split-thickness skin grafts:** Thinner slices of graft is used But are similar to mini punch grafts. The procedure may require general anaesthesia and are often successful for vitiligo of the Lips

It has the disadvantage of producing scars in both donor and grafted areas and it produces thickened edges and milia formation [2].

4. **Ultra-thin skin grafting:** Ultrathin split-thickness skin grafting, when combined with NBUVB therapy, leads to better cosmetic outcome with faster onset of re-pigmentation in resistant stable vitiligo.

5. **Suction blister grafting:** This method separates the epidermis from the dermis with a suction device which causes blisters. The epidermis is placed on the abraded vitiligo areas. This method has the disadvantage of areas of hypo pigmentation between the grafts. The advantage is that the scarring is minimal.

Ultrathin split-thickness skin grafting, when combined with NBUVB therapy, leads to better cosmetic outcome with faster onset of re pigmentation in resistant stable vitiligo.

Among surgical methods, punch skin grafting (PSG) and suction blister epidermal grafting (SBEG) are simple, inexpensive, and effective treatment methods for resistant lip vitiligo cases, but there is a lack of comparison between these procedures for lip vitiligo [3].

6. **Transplantation:** Therapies include Transplantation of Melanocytes or Transplantation of melanocyte and keratinocytes together.

Procedure: Vitiligo areas are abraded. Lasers can be used for abrading the vitiligo areas.

Dressing with melanocyte mixture is placed on the site and covered until the area heals. Some form of light is often used to help stimulate the pigment.

7. **Transplantation of pure melanocyte:** This requires growth medium. The results are inconsistent depending on growth medium. There is a possibility of malignant development of melanocyte.[4,5]

METHOD: Donor skin graft is removed, melanocyte are separated and cultured in a growth medium. Transplanting melanocytes and keratinocytes together is a much easier technique. There is no need for growth factors since keratinocytes help produce more melanocytes. Both melanocytes and keratinocysts are separated out from the donor skin.

DISCUSSION: Many surgical procedures have been described for lip vitiligo with variable results. The procedures are an important adjuvant for medical therapy. Patient selection based on the stability of the disease is an important criterion for optimal results. The definition of stability is determined by the absence of new lesions, no progression of new lesions, and absence of Koebner phenomenon over the past one year. The choice of surgical method according to the area and site involved gives better results.

The preferred procedure in our experience for lip vitiligo has been SBEG and alternate method is PG.

Although both the procedures are effective in lip vitiligo, PSG gives a better color match than SBEG.

Above all, proper patient counselling about the nature of disease and the surgery is essential. Recently, autologous melanocyte transfer via epidermal graft has been found to give good results for stable lip vitiligo. It does not produce abnormal keratinization. So it gives more cosmetically acceptable result.

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REVIEW ARTICLE

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Date of Submission: 23/10/2014.
Date of Peer Review: 24/10/2014.
Date of Acceptance: 10/11/2014.
Date of Publishing: 11/11/2014.