National University Hospital

LOCAL FLAPS AND SKIN GRAFTS AFTER SKIN CANCER SURGERY

Patient and Family Information

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What is the purpose of having local flaps and skin grafts after skin cancer surgery?

Skin cancer refers to the abnormal growth of skin cells. There are three major types of skin cancer: basal cell carcinoma, squamous cell carcinoma, and malignant melanoma. Being exposed significantly to ultraviolet radiation is a major risk factor for skin cancer. Thus, skin cancer is most commonly found in skin which is exposed to sun.

Skin cancer can be treated with several treatment modalities including excisional surgery, laser therapy, radiation therapy, curettage and electrodessication, and chemotherapy.

After surgery, depending on the size of the skin defect, skin flaps or skin grafts may be used to close these defects. A local skin flap reconstruction refers to the process of covering a wound or skin defect with a piece of adjacent skin by making several additional cuts on the surrounding skin. A skin graft utilises a piece of skin which is taken from a separate area of the body, commonly the neck, ear or skin above the collar bone, and then placed onto the wound or skin defect to cover it.

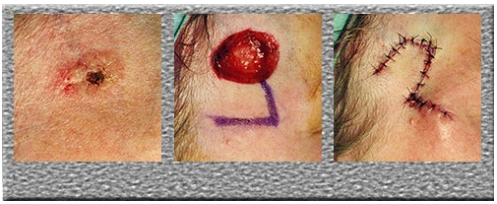

Image Source: entusa.com

Why do I need this surgery?

There are different reasons for undergoing a skin flap or skin graft reconstruction after the skin cancer excision surgery. One or more of the following reasons may apply to you:

- **Large-sized skin defect:** When the skin cancer involves a large area of skin, the resulting defect will be sizeable. In this case, there may be insufficient loose skin around the wound to stitch the edges together.
- **Cosmetic reasons:** The location of the wound may cause a direct closure of the skin defect by stitching together edges of loose skin which may be look nice aesthetically. Therefore, closure of the defect utilising a local flap or skin graft may result in a better cosmetic outcome.

What does this surgery involve?

This surgery may be performed under general or local anaesthesia, depending on the extent of the surgery. Your surgeon will discuss with you the appropriate approach suited to your condition.

A local flap reconstruction occurs when your surgeon takes a piece of skin that is adjacent to your wound defect and shifting it to cover this wound. Additional incisions or cuts on the surrounding skin are necessary to move this adjacent skin to cover your wound. There are several types of local flaps that are appropriate for different wound sites. Your surgeon will discuss with you the most optimal approach relevant to your condition.

A skin graft reconstruction entails removing skin from a separate area of the body and using this skin to cover your wound defect. The donor skin can be taken from several areas, including but not limited to the neck, ear or skin above the collar bone. The aim of the choice of donor skin is to match the colour, thickness, and texture of the skin around your wound. In most cases, the donor site (where the skin is removed from) and the wound site (where the skin is placed onto) are closed with stitches. A dressing may be applied to reduce the risks of infection and to assist in wound healing.

What are the risks associated with this surgery?

There are potential complications associated with any surgery. This may pertain to the administration of anaesthesia or the surgical procedure itself. You should speak to your doctor about these risks. Here are some of potential complications:

Local Flap Reconstruction

- **Flap failure:** The skin flap may not survive or heal well at times. This may be due to having poor blood supply to the skin flap or a wound infection. If this happens, your surgeon will discuss with you on the next alternative method to manage the wound. A revision surgery might be required in some cases.
- **Infection:** Infection of the skin flap may cause the wound site to swell and result in discharge. Your surgeon will most likely prescribe you with some antibiotics. In some cases, an uncontrolled infection can cause the flap to fail.
- **Hematoma/Seroma:** Rarely, a buildup of blood of fluid may occur under the skin flap and drainage or removal to preserve the viability of the skin flap may be needed.
- **Scarring:** Scars are expected from the surgical incisions. Your surgeon will educate you on how to manage these scars to reduce the risk of hypertrophic scarring or keloid formation which cause the scar to look lumpy. However, hypertrophic scarring or keloid formation may still occur in some patients.
- **Unsatisfactory cosmetic outcomes:** The local flap reconstruction will unlikely look identical to your normal skin. Your surgeon will aim to improve the cosmetic appearance of your wounds and scars so that the final outcome will look as aesthetically pleasing as possible.
- **Distortion of surrounding structures:** As adjacent skin is used, surrounding structures such as the lips, nose, ear and eyes may be distorted.

Skin Graft Reconstruction

- **Graft failure:** In some cases, skin graft does not survive after being transferred to the wound site. As such, your surgeon will discuss with you on the next alternative method to manage the wound. A revision surgery might be required in some cases.
- **Infection:** Infection may result in discharge and your surgeon will likely prescribe you with some antibiotics. In some cases, an uncontrolled infection can cause the skin graft to fail.
- **Scarring:** Scars are expected from the surgical incisions. Your surgeon will educate you on how to manage these scars to reduce the risk of hypertrophic scarring or keloid formation which cause the scar to look lumpy. However, hypertrophic scarring or keloid formation may still occur in some patients.
- **Unsatisfactory cosmetic outcomes/contour deformities:** The skin graft reconstruction will unlikely look identical to your normal skin. There may be a contour defect associated with the graft recipient site where the skin appears slightly sunken in and the colour may differ from the surrounding skin. This may be permanent.
- **Numbness:** The area over the skin graft will lack the same sensation as surrounding normal skin.
- **Donor site complications:** Sometimes, scarring or infection may occur at the donor site where the skin graft was taken. This is most commonly managed with antibiotics.

What are my alternative options?

Each defect/wound after the skin cancer excision surgery is different. Alternative options may include but are not limited to healing by secondary intention (application of dressings to allow the wound to heal), primary closure of the wound defect, and vacuum assisted wound therapy. Your surgeon will discuss the relevant alternative treatment options suited to your wound.

What can I expect immediately after surgery?

In some cases, you may be discharged on the same day after the appropriate post-operative monitoring. Some patients may require an overnight stay in the hospital, depending on the extent of the operation and their medical co-morbidities.

Small amounts of blood stains on the wound dressings are expected. Your surgeon will inform you on the appropriate wound care required when you are discharged.

It is important to use your medications and care for your wounds as prescribed. Doing otherwise may lead to an increased risk of complications such as infection and flap/graft failure.

Post-operative care

- Your surgeon will provide you with specific instructions on how to care for your wounds. It is important to follow these instructions to improve the wound healing process.
- It is normal to notice some staining of your wound dressings or mild oozing of blood from the wound immediately post-surgery. If this persists, please return to the ENT clinic/ emergency department.
- Do look out for signs of wound infection such as increase in pain, swelling or discharge from the wound. If this happens, please return to the ENT clinic/emergency department
- Avoid smoking after surgery as this will reduce blood supply to the healing wounds and increase the risk of graft/flap failure

Should you have any pre or post operation queries, please call us at 6772 4551 or email us at ent_fc@nuhs.edu.sg.

For urgent medical attention, please walk into the clinic during operating hours (Monday to Friday, between 8.30am to 5.30pm) or visit the Emergency Department after clinic hours.

Reference:

- Image source: entusa.com

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