



COSMODERM TIMES

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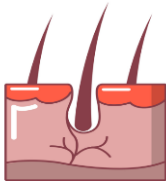
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Surgical Results of Mohs Micrographic Surgery for Distal Third of the Nose Basal Cell Carcinoma

Introduction

The primary therapy for basal cell carcinoma (BCC) in aesthetically sensitive regions such as the nose is Mohs micrographic surgery (MMS). It has the greatest tumour cure rate because to perfect margin control and allows for maximum tissue conservation.^[1] The Mohs surgeon must select the surgical repair that will result in the greatest surgical and aesthetic results for the patient once the tumour has been entirely removed.^[2] The Mohs surgeon must select the surgical repair that will result in the greatest surgical and aesthetic results for the patient once the tumour has been entirely removed. While a primary closure is frequently thought to be the easiest repair, it is significantly more difficult and even impossible on tissue-limited parts of the nose such as the supratip, infratip, and alae. Each surgeon has a preference, but there is no computational approach to help with the selection. The study examined the surgical results of a local skin flap, FTSG, and SI utilising an objective scar measuring after MMS on the distal portion of the nose.

Methods

The primary goal of this study is to see if there is a statistically significant difference in surgical outcomes between a local skin flap, a full thickness skin graft (FTSG), and a secondary intention (SI) after Mohs micrographic surgery (MMS) for basal cell carcinoma (BCC) on the distal third of the nose. A single surgeon did a retrospective case evaluation of 66 MMS deformities on the distal portion of the nose. At six months, clinical photos of MMS abnormalities and surgical scars were collected and assessed using the Vancouver Scar Scale (VSS). To examine the association between the key predictor factors and VSS, Pearson Chi-square and Fisher's Exact tests were used.

Results

Of the 66 patients that survived, 52 had low VSS (77.61%), 11 had medium VSS (16.42%), and three had high VSS (4.48%). The 52 patients with low VSS were treated with local anaesthesia (76.92%), FTSG (17.31%), and SI (5.77%). Two patients with mild VSS got local flap surgery (18.15%), nine underwent FTSG (81.82%), and none cured by SI. Zero of the three patients with high VSS had local flap or SI, while all three had FTSG (100%). Bivariate analysis revealed that the kind of repair used was related to VSS at six months, with patients treated with a local skin flap having better results.

Discussion:

BCC is the most prevalent cutaneous cancer, and it primarily affects White persons in sun-exposed regions such as the face. This study examined current epidemiologic trends of histological subtypes of BCC, with nodular being the most frequent (48% in the current study). Infiltrative was the second most prevalent subtype in our group (23.38%). While infiltrative BCC patterns may result in deeper ultimate defects on occasion, there was no statistical relationship between defect depth and VSS shown above. Up to 40% of BCCs may exhibit



more than one histological subtype; in this research, 16.88% of patients showed mixed histology of BCC. Finally, 11.69% of the participants in this study showed a superficial trend. [3] To treat BCC, complete surgical excision is the standard of therapy, and MMS is frequently used because to its tissue sparing strategy, which results in reduced final defect sizes, high clinical and histological cure rates, and decreased tumour recurrence. [3]

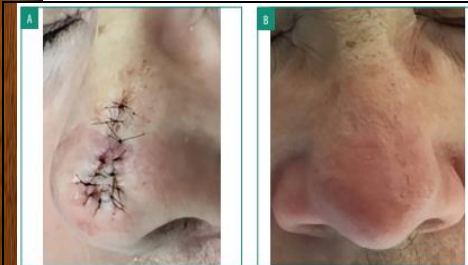


FIGURE 1. A patient who underwent local skin - ap imaged immediately after repair (A) and at 6 months follow up (B).



FIGURE 2. A patient who underwent a full thickness skin graft imaged immediately after repair (A) and at six months follow up (B).

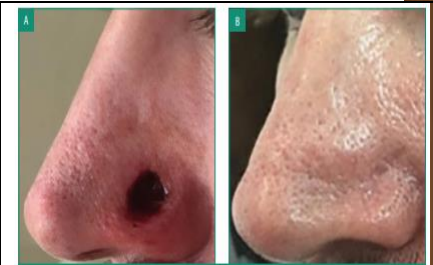


FIGURE 3. A patient who underwent a secondary intention imaged immediately after the nal MMS stage (A) and at six months follow up (B).

Following tumour removal, the surgeon must decide whether to seal the surgical gap with a linear repair, local skin flap, skin graft (either split thickness or FTSG), or let the wound to heal by SI. The anatomical location, defect size, defect depth, and chance of recurrence all play a role in this choice. Certain patient variables, including as age, health, function, and cosmetic considerations, must also be considered by the surgeon. Diabetes, cardiovascular disease, and cigarette smoking are all comorbidities to consider. [4]

This study concentrated on surgical repairs after MMS for BCC on the distal part of the nose. The nasal alae, supratip, and infratip were all evaluated. The goal was to see if there were any changes in surgical result, as defined by the VSS, depending on the kind of repair used; we wanted to explicitly compare local skin flaps, FTSG, and SI healing. Furthermore, local skin flaps, particularly random pattern flaps, rely on a vascular plexus for blood supply. Their barely disrupted vascular supply is most likely what led to a lower VSS at six months for local skin flaps.

All three patients who were cured by SI had low VSS (100%); none had middle or high VSS. After looking into the patient concerns of these three patients who were treated by SI, it was discovered that two of the faults were on the alar crease and one was on the supratip. This is consistent with current surgical standards, which allow for SI in concave places such as the alar crease. [2] While patients who had SI had decreased VSS, it is also important to note the small sample size in this group. Other studies have also identified a small number of individuals who underwent SI. [5]

Given the small sample size of patients who received SI, a larger volume investigation would be required to replicate these findings before making definitive recommendations on this method of treatment. This data does imply that, in the right situation and with the right patient, SI care may allow for successful recovery, as seen by a low VSS.



Conclusion:

These findings suggest that, as compared to FTSG or SI, local skin flaps may result in a reduced VSS at six months, providing improved surgical outcomes in the treatment of BCC on the distal third of the nose.

The results demonstrate that local skin flaps may result in a reduced VSS at six months when compared to FTSG or SI, providing improved surgical outcomes in the treatment of BCC on the distal third of the nose.

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The Role of Wound-Edge Microgranular Skin Grafting in the Treatment of Small Wounds

Introduction

People have paid increasing attention to beauty in recent years, and the treatment of different minor wounds has received increasing attention. If no intervention is provided, a simple dressing change may result in a significant scar on the afflicted region, impairing function while also making the infection worse or more difficult to heal. Such wounds frequently need surgery, such as abdominal embedment, skin grafting, or skin flap transfer, to prevent infection from spreading, cure the wound, and restore function to the damaged area. However, patients are often hesitant to undergo such procedures, particularly those with acute and chronic wounds or third-degree burns in various sections of the body. ^[1] Burns and persistent wounds are two separate risk factors for wound healing. The difficulty of wound healing is considerably worsened in people with burns or chronic wounds aggravated by type 2 diabetes. It has become a therapeutic difficulty to treat lower limb ulcer ulcers in patients with burns, chronic wounds, and diabetes. However, because some patients with large-area burns have fewer autologous skin sources, postoperative wound repair is more difficult, or because the physical conditions cannot tolerate anaesthesia, when the wound condition is mature, we directly take part of the wound edge skin (the thickness depends on the wound base conditions) and cut it into



microgranular skin for grafting under local anaesthesia at the bedside. [2] The doctors employed wound edge microgranular skin grafting in this investigation. They treated a total of 12 patients to investigate the clinical effects of wound edge microgranular skin grafting in the treatment of diverse minor wounds and got satisfactory results.

Methods

The hospital gathered and recorded data from 12 individuals suffering from chronic wounds and third-degree burns. To graft skin on the wound, the method of skin grafting with particles at the wound's edge was utilised. The wound was assessed using a scar assessment scale. The patients were monitored for a year. Preoperative and postoperative data, scar index, and patient satisfaction after healing were all collected and examined statistically.

Results

All patients in this group were followed up on for 3-12 months, and the results revealed that the SCAR Scale score significantly dropped with time, with patient satisfaction ranging from 80% to 96%. The patient eventually recovered, scar hyperplasia improved, functional activities gradually returned to normal, and the clinical outcome was good.



Figure 1 Typical case I. (A) On physical examination, there was purulent secretion at the incision, and the wound skin was completely defective. (B) The suturable part was sutured. (C) Larger scar tissue might be formed in this area. (D) It was recommended to perform the second microgranular skin grafting surgery. (E and F) The wound is completely healed.



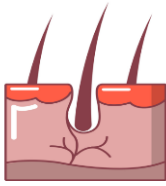
Figure 2 Typical case II. (A) Chronic wound on the back of forefoot for over six months. (B) Debridement and dressing change regularly. (C) Basically clean wound. (D) The wound is completely healed.



Figure 3 Typical case III. (A) Chronic wound near the lateral malleolus of the lower leg. (B and C) Debridement and dressing change regularly. (D) No obvious scar hyperplasia was found and the wound healed basically. (E) After the wound was basically cleaned, the wound that could be sutured proximal was sutured. (F) No obvious scar hyperplasia was found and the wound healed basically.

Discussion

Treatment options for large-scale wounds with current medical technology primarily include microgranular skin transplantation, Meek skin grafting, allogeneic skin perforation and autologous skin transplantation, mesh autologous skin transplantation, autologous stamp skin transplantation, autologous particles combined with allogeneic large-scale skin transplantation, and so on. [3] Patients with extensive wounds have been treated to some extent, but if they have previously undergone skin grafting, there may be damage to the donor region, and the cost will be considerably increased. Furthermore, merely changing the dressing does not hasten wound



healing. On the contrary, the infection worsens and a scar forms, impairing function and adding to the burden on patients and their families.

Microgranular skin grafting technique is a type of skin grafting technology that divides the skin into small particles to boost its capacity to expand and proliferate. There are five dermal surfaces and one epidermal surface on the microgranular skin tissue. During the plasma nourishment stage, blood vessels form in and travel around the wound, eventually stabilising as nerve fibres grow. ^[4]

The doctors studied microgranular skin grafting further and performed similar procedures. On this premise, they offered the notion of this sort of operation, if it is feasible to do a type of microgranular skin grafting surgery using only the skin on the edge of the incision, and whether such an operation may provide better outcomes for these patients. Because skin wounds release growth factors, the normal skin on the wound's margin will also secrete growth factors.

The wound healing was hastened by the skin island generated by the microgranular skin. At the same time, they discovered additional excellent news: the incision healed quickly and the scar hyperplasia was minimal. This surgical procedure offers several advantages, including less trauma, fewer surgical operations, and a long-term therapeutic result. The therapy discovered that the microgranular skin expands and the local dermal tissue expands, restoring the wound surface to a certain degree of flexibility and improving recovery. At the moment, the operation's outcomes are satisfactory, and there are no evident difficulties.

Maybe it's because the doctors closely adhere to aseptic procedures every time the dressing is changed, or maybe it's because the preoperative wound preparation is appropriate. This study assessed the wound edge particles repair skin transplantation in chronic wounds or the application effect of burn wounds, and the results show that skin grafting to repair wounds particles are less for leather, high healing rate, and the characteristics of the small wound healing quality is good, avoid the taken from different parts of the skin, is a type of suitable for application in chronic wounds or burns wound repair technology. It can be shown that this procedure has a positive effect on patients with such wounds, and it may also relieve the patient's discomfort while saving time and money.

Conclusion:

Microgranular skin grafting has become increasingly popular, particularly in addressing the issue of limited skin donor regions for many large-scale serious burns. This is quite important. While microgranular skin grafting is still in its early stages, its potential is enormous, and further study is needed. There are presently three examples and a tiny sample size in this article. In the future, the number of instances will be increased, and controlled research will be conducted. Simultaneously, appropriate surgical treatment approaches will be enhanced in order to attain better clinical outcomes.

Microparticle skin grafting near the wound's edge eliminates the need for skin grafting at several skin donor sites. It has the advantages of easy anaesthetic, little trauma, and a straightforward procedure. When treating patients with chronic wounds and burns that require skin grafting, this procedure should be explored.



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Dermatomyositis patients with small fibre neuropathy and persistent scalp pruritus

Introduction

Dermatomyositis is a chronic autoimmune illness that mostly affects the skin and muscles but can also affect blood vessels, joints, the oesophagus, and the lungs. Gottron's sign, Gottron's papule, Shawl sign, and heliotrope erythema are the most common cutaneous lesions. Among the symptoms of diabetes, scalp involvement is a common manifestation, which includes widespread, scaly erythema, atrophy, and, in many cases, nonscarring alopecia. ^[1] Despite all of the other signs and symptoms in the scalp, pruritus is a significant cutaneous trait in DM that can help doctors differentiate it from other diseases like lupus erythematosus. According to studies, moderate to severe cutaneous itch affects between 38% and 50.8% of DM patients. Recently, several writers reported incidences of acute itching on the scalp in up to 71% of diabetic patients. ^[2]

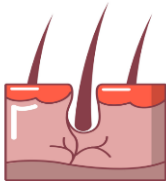
Method

Diabetes patients from the dermatology outpatient clinic with significant scalp pruritus were compared to healthy volunteers. Two 4mm scalp skin samples were taken in the parietal region above the right ear and in the occipital region below the occipital protuberance. Primary antibodies to protein gene product (PGP 9.5), calcitonin gene-related peptide (CGRP), substance P (SP), and collagen IV were utilised to visualise nerve fibres (ENF), and collagen IV was employed to identify the epidermal basement membrane. The mean of SD of counts in 16 photos at two micrometre increments/sections, two from each sample, was recorded as the number of ENFs per millimetre.

Results

The study comprised 15 DM patients with significant scalp pruritus and 12 healthy participants. The mean number of ENF/mm in the DM group's occipital area was 16.0 ± 13.9 , while the control group's was 99.8 ± 33.1 . The number of ENF/mm in the parietal area was 18.0 ± 20.7 in the DM group and 50.4 ± 17.4 in the control group ($p < 0.001$).

Discussion:



For many years, the research of cutaneous scalp innervation was overlooked, particularly when comparing normal to diseased situations influencing epidermal innervation. The authors attempted to analyse the epidermal innervation in the scalp of DM patients and compare them to a healthy control group due to a lack of knowledge about the pathophysiology of scalp pruritus in DM patients and the absence of a detailed description of nerves and the peripheral nervous system in the scalp of DM subjects. As a result, this is the first study to compare a group of people with diabetes and scalp pruritus to healthy controls. According to our findings, the DM group exhibited a substantial drop in epidermal nerve fibre density in the occipital and parietal regions.

Pruritus is a common and complicated symptom of neuropathic disorders that has a significant influence on quality of life. It is a type of skin irritation that induces a strong desire to scratch the afflicted area, providing transient and instant relief. Its purpose is to protect the skin from possibly hazardous exterior substances. ^[3] In diabetic individuals, inflammatory myopathy occurs in conjunction with microvascular change; consequently, one or more of these scalp structures may be affected, resulting to altered sensation and itching. All DM patients in our sample were symptomatic at the time of biopsy, with evidence of itching accompanied with abrasions, hematic crusts, and, in some cases, cicatricial baldness due to extreme damage produced by scratching.

Small nerve fib2 is characterised by one or more of the following signs and/or symptoms: I decreased tactile or thermal sensitivity and/or allodynia/hyperalgesia, (ii) abnormal heat and cold sensitivity tests, and/or (iii) decreased ENF density. However, the lowering of epidermal nerve fibre density is the gold standard criterion. ^[4]

The morphology was also considerably changed in this study, with tangles of thick nerves in the subepidermal neural plexus, axonal edoema, and just a few branches reaching the epidermis. Low density and minimal branching were discovered among the ENF.

A recent study of 1827 systemic lupus erythematosus patients tracked at 31 clinics across Europe, Asia, and North America discovered that 7.6% of them had PNS illness. Peripheral neuropathy was the most common kind of PNS illness among them (41.0%-66/161) and was linked with a considerably worse quality of life when compared to those without PNS disease. ^[5]

Researchers had afrodescendants and Fitzpatrick skin types 2-4 in both the DM and control groups, indicating that the doctors had similar racial miscegenation, with no significant difference in ENF density in the control group. Concerning the likelihood of genetic factors influencing nerve fibre density, there is no evidence in current studies that distinct genetic information might dramatically modify human skin innervation. The rarity of this sickness, as well as the severity of the scalp symptoms and the expensive expenditures of developing this research, limited the investigation.

Conclusion:



In conclusion, the study found a significant decrease in ENF density in the occipital and frontoparietal regions of DM patients compared to healthy controls, indicating that dermatomyositis may be related with small fibre neuropathy. This data offers up new avenues for these patients' diagnosis, treatment, and follow-up, perhaps improving their quality of life.

Diabetes patients with pruritus may have decreased tiny nerve fibre density, which might explain their stubborn scalp itch.

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Multiple Pyoderma Gangrenosum Lesions at Various Stages in a Crohn's Disease Patient

Introduction

Pyoderma gangrenosum (PG) was initially reported as a "geometric phagedena" (phagédénisme géométrique) in 1908, and was later renamed PG in 1930. It is a kind of inflammatory dermatosis distinguished by the fast spread of a painful, necrolytic ulcer with an uneven, undermined border. Early signs of pyoderma gangrenosum include pustules and nodules, which can lead to ulcers. The pathophysiology of PG is unknown. The pathophysiology of PG is thought to be connected to the excessive recruitment of neutrophils to the dermis, which is a common clinical characteristic. PG is often a diagnosis of exclusion; nevertheless, diagnostic criteria for PG have recently been presented. In almost half of the cases, PG is related with systemic illnesses such as rheumatoid arthritis, haematological malignancies, and inflammatory bowel disease (IBD). Almost one-third of people with PG have IBD, and the frequency of PG in Crohn's disease (CD) patients is estimated to be 0.7%. 4 Here the researchers present a case of a CD patient who came with varied stages of PG lesions.

[1]

Case Presentation:

One week before the fourth infliximab infusion for moderately active CD, a 29-year-old man presented with a variety of painful skin lesions, including erythema, vesicle, plaques, and ulcers. Physical examination revealed several erythematous papules/plaques coated with crust varying in size from 0.5 to 1.5 cm on the head and face. On the belly was an erythematous



papulovesicle, and on the leg was an oval, 0.5cm-sized erythematous ulcer. A single oval, 1cm-sized, strongly delineated ulcer is also seen on the penis. Skin biopsies revealed epidermal acanthosis and a lichenoid infiltration of lymphocytes in the superficial dermis, as well as dermal edoema (the papule on the belly) and a dense polymorphic inflammatory dermal infiltrate rich in neutrophils, all of which were consistent with PG (the ulcer on the calf). Infection, vasculitis, and cancer were all ruled out by laboratory and radiologic studies. A bone marrow biopsy revealed nothing abnormal. Tissue cultures did not support the growth of bacteria or fungus. The patient was diagnosed with PG, and after failing to respond to infliximab, a ustekinumab infusion was administered. After a month of 390-mg ustekinumab infusions, the lesions progressively faded.

Discussion

PG is an uncommon neutrophilic dermatosis that affects 3-10 people per million each year. It is most frequent in those aged 20 to 60, with the average age of onset being 44. Other related illnesses include IBD, arthritis, and haematological malignancies (acute myelogenous leukaemia, myelodysplasia, and IgA monoclonal gammopathies).^[2]

CD is a gastrointestinal inflammatory disorder that can affect other organs such as the skin, eyes, liver, and joints. Cutaneous extraintestinal symptoms are presently classified into four types: disease-specific lesions, reactive lesions, linked disorders, and therapy-related lesions. Disease-specific lesions found only in CD13, such as perianal fissures/fistulae and metastatic CD, are induced by a pathologic process identical to the underlying CD directly involving the skin. Erythema nodosum (EN) and pyoderma gangrenosum are typical cutaneous symptoms of reactive lesions caused by cross antigenicity between the integument and gut mucosa but lack the pathologic characteristics of IBD.



Figure 1 (A–C) multiple erythematous papules/ plaques covered with crust on the scalp and face ranging from 0.5 to 1.5cm. (D) an erythematous papulovesicle on the abdomen. (E) single oval, 1cm-sized, sharply demarcated ulcer located on the penis. (F) an erythematous ulcer on the right calf.

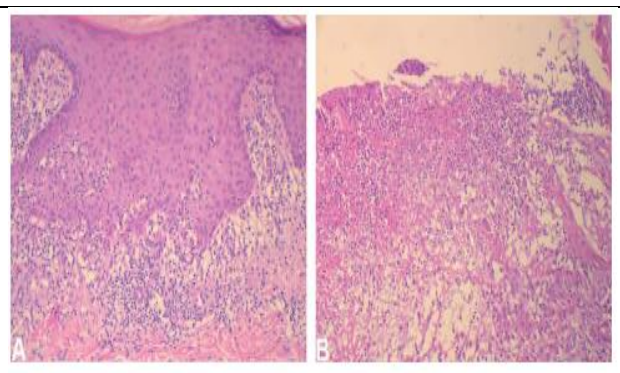


Figure 2 (A) an epidermal acanthosis and a lichenoid lymphocyte infiltrate in the superficial dermis with dermal edema (the papulovesicle on the abdomen, HE, ×100), (B) a dense polymorphic inflammatory dermal infiltrate, very rich in neutrophils (the ulcer on the calf, HE, ×100).

The histopathologic findings of PG are not specific, and collecting a biopsy specimen is done primarily to rule out alternative causes of ulceration. Dermal or pannicular blood vessels may be disrupted or necrotic in skin biopsy specimens collected from erythematous areas next to ulcers (with lymphocytes as the predominant inflammatory cells). Classical histological results revealed mixed cellular inflammation with neutrophil predominance in necrotic, undermined



ulcer border skin biopsy tissues. The skin biopsy of the ulcer in this patient revealed typical neutrophil infiltration characteristics. The papulovesicle, on the other hand, showed a lichenoid lymphocyte infiltration in the superficial dermis with dermal edoema, demonstrating that distinct phases of PG lesions presented diverse histological presentations.

The primary therapy for PG is systemic corticosteroids and immunosuppressive medications. Biologics and small-molecule medicines are gaining popularity. Furthermore, addressing the underlying condition may be beneficial. Infliximab-Tumor Necrosis Factor (TNF) antagonists have demonstrated a more significant improvement in PG. Other biologics, including tocilizumab, ustekinumab, vedolizumab, anakinra, and canakinumab, as well as small-molecule medicines like tofacitinib and apremilast, have been shown to be efficacious in small sample sizes.^[3]

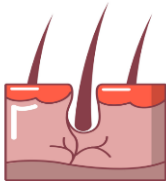
Conclusion

The study presents an uncommon example of many phases of PG lesions occurring concurrently in a Crohn's disease patient one week before the fourth infliximab infusion, and the lesions gradually decreased after one month of taking ustekinumab. It implies that numerous painful skin lesions, such as erythema, vesicles, plaques, and ulcers, might represent PG manifestations, and that medication should be reconsidered.

Pyoderma gangrenosum (PG) is a painful, necrolytic dermatosis with an uneven and weakened boundary. The prevalence of PG in Crohn's disease (CD) patients has been estimated to be 0.7%. We provide a case in which the patient developed a variety of painful skin lesions, including erythema, vesicles, plaques, and ulcers, one week before the fourth infliximab infusion for CD. After a month of receiving 390-mg ustekinumab infusions, the lesions disappeared. It implies that distinct PG lesions may arise concurrently in CD patients, and that treatment should be re-evaluated over time.

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