NEW YORK REGIONAL SOCIETY OF PLASTIC SURGEONS

2018 RESIDENTS′ NIGHT ABSTRACT

Abstract Submission: L1 (Group 3)

Title*: Secondary Intention Healing after Mohs Surgical Excision as an Alternative to Surgical Repair: Evaluation of Wound Characteristics and Cosmetic Outcomes*

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PURPOSE: A multitude of reconstructive options exist for patients after Mohs surgery of cutaneous neoplasms of the head and neck including skin grafts, flaps and healing by secondary intention. Secondary intention healing is often overlooked and underused but has numerous advantages, including superior cosmetic outcomes compared with surgical reconstruction for wounds that exhibit particular characteristics. The ability to predict cosmetic results based on wound characteristics can greatly help in the decision between surgical repair and secondary intention healing. While other studies have discussed results after secondary intention healing on various areas of the head and neck, here, we specifically focus on cases of the nasal area.

METHODS: Chart review of nasal reconstructions using secondary intention healing by a single surgeon (TLH) over a one-year period was conducted. Wounds were graded and described as follows:

- Poor cosmetic outcome: clearly depressed or elevated scar with severe mismatch in color to surrounding skin

- Acceptable: depressed or elevated scar with good color match or clear color mismatch but with good edge contour

- Good: little mismatch in edge contour with good color match or only mild hypopigmentation to surrounding skin

- Excellent: scar with no mismatch in edge contour and a good color match or only mild hypopigmentation to surrounding skin

- Superficial wound: largely limited to the dermis including only a small part of fatty subcutaneous tissue

- Deep wound: dermal layer and deeper tissue layers such as muscle and cartilage

RESULTS: (Please see table below). We found that overall, the best cosmetic outcomes were associated with concave areas of the nose, such as the nasal ala and sidewall, and that superficial wounds healed better than deep wounds. Furthermore, we found that convex areas of the nose, such as the nasal tip, did not

heal as well by secondary intention. However, if the wound was small and superficial enough, the wound still healed with a good to excellent cosmetic outcome. Patients with sebaceous skin had wounds that healed with more depression and scarring, and patients with poor adherence to proper wound management exhibited more scarring.

CONCLUSIONS: In conclusion, healing by secondary intention is a reasonable consideration for suitable wounds. With this technique, the wound is allowed to heal with only local wound care. The need for surgical scar revision is addressed, if necessary, after the wound has healed. The benefits of secondary intention healing include:

- Saving time and costs associated with invasive procedures, hospitalizations, and surgical complications

- Better observation for signs of tumor recurrence without rearranging tumor containing tissue or burying residual tumor with flaps/grafts

- No donor site scarring

- Viable option for patients who are not good surgical flap candidates (such as those on anticoagulants) and patients who are afraid of needles

Future studies will address a larger cohort size of patients with more varied skin types and ages, as these are characteristics that can influence cosmetic outcome. Furthermore, healed wounds continue to improve in appearance over time, and it would be worthwhile to monitor patients' cosmetic outcomes over a longer follow-up period.

Table 1 – Patient demographics and wound characteristics

	Acceptable outcome*	Good outcome*	Excellent outcome*
Sex			
Female	2	2	2
Male	-	2	3
Age			
<60	-	-	1
61-80	2	3	3
>80	-	1	1
Skin Type (Fitzpatrick)			
I	1	-	-
II	1	4	5
III	-	-	-
IV	-	-	-
V	-	-	-
Wound Side			
Left	1	3	3
Medial	-	-	1
Right	1	1	1
Wound Subsite			
Nasal tip	1	-	1
Nasal ala	-	3	3
Nasal sidewall	1	1	1
Wound Surface			
Convex	1	-	1
Concave	1	4	4
Wound Size			
<= 1 cm	2	3	4
1-2 cm	-	1	1
Wound Depth			
Superficial*	2	2	5
Deep*	-	2	-