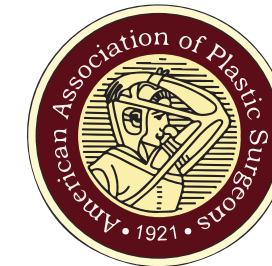
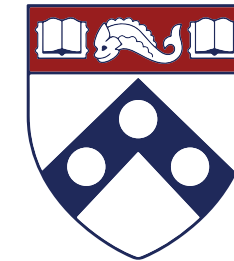


Aesthetic and Functional Outcomes Following Reconstruction of Mohs Defects of the Lip: Analysis of 417 Cases

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INTRODUCTION

- Vermilion lip defects secondary to Mohs micrographic surgery (MMS) present significant challenges to the reconstructive surgeon as the lips are the primary aesthetic unit of the lower face
- The lip also holds functional importance for oral competence, speech, eating, and smiling
- The association of reconstructive method and defect size with aesthetic and functional outcomes of the lip remains uncertain.

METHODS

- A retrospective review of patients who underwent MMS with subsequent reconstruction involving the vermillion lip between 2008-2022 was performed.
- Outcomes assessed included satisfactory appearance and function within 12 months, as reported at postoperative visits, complications, and surgical revisions.
- Patients were stratified by the proportion of vermillion lip excised into three groups: <25% vermillion excised, 25-50% vermillion excised, and >50% vermillion excised
- Outcomes were analyzed using multivariable logistic regressions adjusting for patient-associated factors and with Chi-square tests.

RESULTS

Table 1. Surgical and patient-related outcomes for reconstruction of MMS lip defects by defect area

	Defect <25%	Defect >25%	P*	Defect 26-50%	P**	Defect >50%	P***
Surgical revision	31 of 377	18 of 40	<.0001	9 of 28	<.0001	9 of 12	0.018
Complication	26 of 377	16 of 40	<.0001	6 of 28	0.006	10 of 12	0.0004
Satisfactory function	325 of 327	31 of 35	<.0001	24 of 24	0.99	7 of 11	0.0057
Satisfactory appearance	183 of 200	19 of 25	0.016	15 of 17	0.67	4 of 8	0.059

* Comparison between defect >25% and defect <25%

** Comparison between defect 26-50% and defect <25%

*** Comparison between defect 26-50% and >50%

Table 2. Reconstructive technique by vermillion defect proportion.

Reconstructive modality	Defect <25%	Defect >25%	Defect >50%
Advancement	235	10	0
Rotation	21	1	0
IPF	106	4	1
Transposition	20	1	0
Karapandzic	2	0	0
Abbe	0	1	1
Peri-alar crescentic advancement	1	1	1
Other	5	9	4
TOTAL	390	27	7

RESULTS

- A total of 417 patients underwent reconstruction of MMS defects involving the upper or lower vermillion lip
- The mean defect area reconstructed was 3.1 +/- 5.0 cm²
- A total of 40 patients had defects involving greater than 25% of the vermillion lip
- Aesthetic and functional outcomes did not differ between patients with <25% versus 26-50% of the vermillion excised.
- Patients with >50% vermillion excised were significantly less likely to have satisfactory function (63.6% vs 99.4%, p<.001) and appearance (50.0% vs 91.5%, p=.004).
- Involvement of >25% vermillion was predictive of increased complications [OR=4.2, 95% CI: (1.6-11.0)] and revisions [OR=3.8, 95% CI:(1.5-9.4)].
- Reconstructive method was not associated with any effect on aesthetics or function.

CONCLUSIONS

- The vermillion lip remains a challenging area to address for the reconstructive surgeon given its large aesthetic and functional role
- Larger vermillion defects due to MMS were associated with more complications and revisions and were associated with lower rates of satisfactory function and appearance at 12 months