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Introduction

- Surgery of nasal skin tumors: 3 objectives: Carcinological, functional and aesthetic
- Aesthetic reconstruction goal: Perceive the reconstructed part as a normal and acceptable variation, not as a deformity.
- Systematic analysis of loss of substance +++: nature of missing tissue, topography and size.

objective

- Study the modalities of nasal skin defect reconstruction, to establish a clear hierarchy according to the site and the extent of the substance loss.

Methods

- Retrospective study, from January 2009 to December 2023
- 60 patients operated on for partial nasal skin defect of tumour origin
- ENT and cervico-facial surgery department of the Salah Azaiez Institute.

Results

Mean age : 65 years [24-86]
 Male predominance(35Men,25Women) , Sex ratio:1,55

Risk Factors :
Sun exposure +++ : 89% of our patients.
Skin Tone : Dark phototype 63% , light phototype and 37%

Reasons for consulting : (figure 1,2)

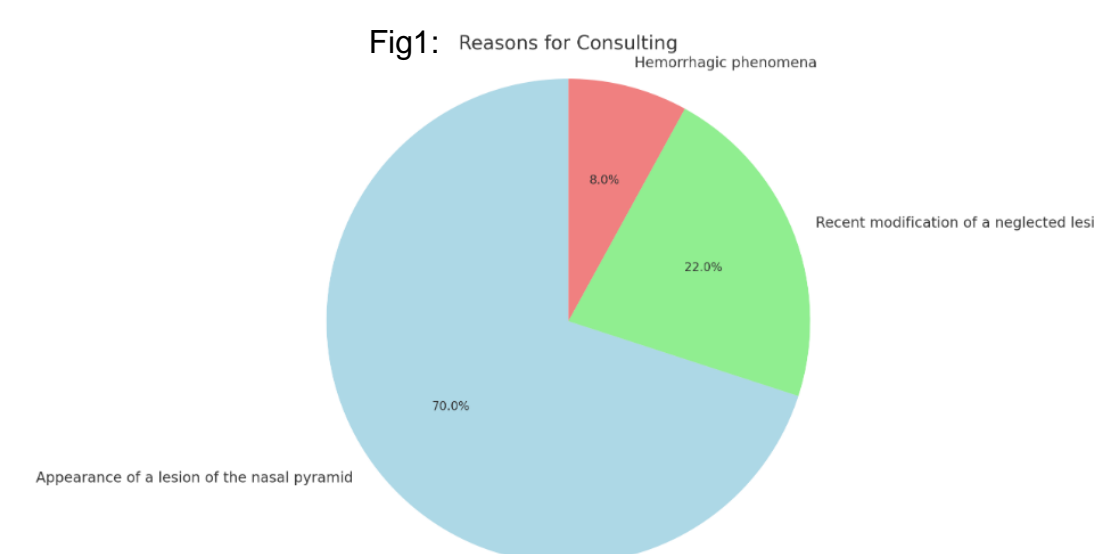


Fig2: Appearance of an ulcerous lesion on the lateral surface of the nasal pyramid.

	Cases	Frequency %
root+dorsum+lateral surface	2	4%
Dorsum+lateral surface	2	4%
tip+wing +dorsum+lateral surface	2	4%
Tip+Wing	1	2%
Columella+Tip+Wing	3	7%
one subunit	50	79%

Fig3: tumors sites

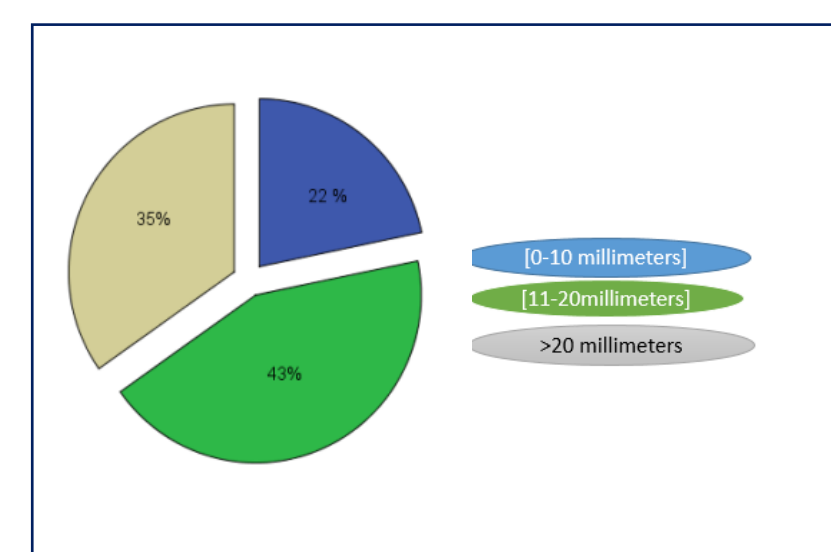


Fig4: tumors sizes

Macroscopic aspect

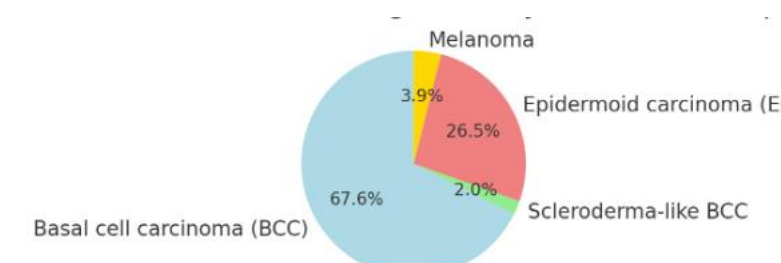


Fig5: Different macroscopic aspects of tumors. A: ulcerated tumor of the nasal dorsum. B: hyper-pigmented keratotic tumor of the nasal dorsum. C: nodular tumor of the lateral aspect of the nose.

Type	Frequency
Borjeoning	4%
ulcerative-borjeoning	22%
ulcerative	22%
hyperpigmented	11%
Keratotic	7%
Ulcerative and Keratotic	8%
sclerodermatiform	2
Nodular	24%

Fig6: Distribution according to macroscopic tumour appearance

Pathological study (fig 7)



TNM classification

For EC and BCC:
 - T1N0M0:61 %
 - T2N0M0:33 %
 - T3N1M0:2 %(1 case)
 2 melanocytic tumors : pT1N0M.

Treatment

Tumor resection:

Extemporaneous histological study of intraoperative sections:

- Non tumoral :56 cases , Tumoral : 4cases → further resection at the same time.
- definitive anatomopathological study →the limits of resection: non tumoral margins in all patients.

Treatment of the lymph nodes

- lymph node dissection(homolateral triangular) :1 case ,T3N1M0
- Metastatic cervical lymphadenopathy of squamous cell carcinoma: 1N+/27N

Repair methods (figure8)

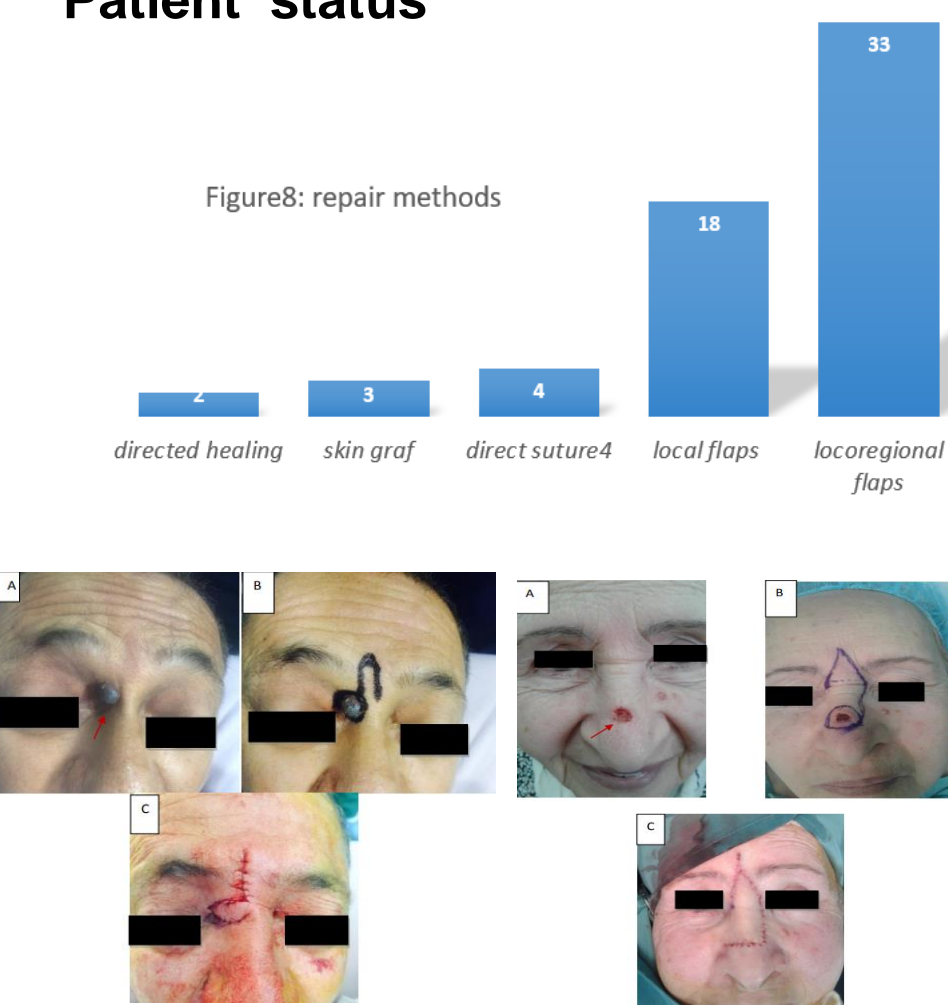
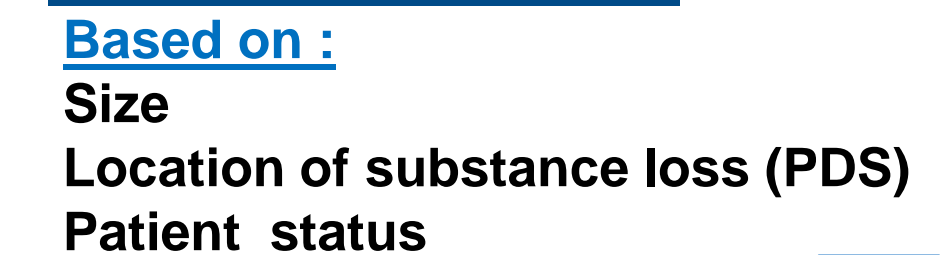


Figure 10 Repair of a nasal root loss of substance using a glabellar flap. A: CBC of medial canthus. B: glabellar flap tracing. C: immediate postoperative result.
 Figure 11: Marchac flap A: Tumor of the nasal dorsum; B: Intraoperative appearance and flap tracing; C: Immediate postoperative appearance

Directed healing

- Loss of substance : <5mm ,
- Location : the tip of the nose.

skin graft:

- Loss of substance : [10 -20mm]
- Location : the nostril wing and the lateral face of the nasal pyramid.
- taken from :retroauricular area , closed by direct suture.

Direct suture (figure 9)

- Loss of substance :[4-10mm]
- Nostril wing and the side face of the nasal pyramid

Local flaps

- single flap: in 17 patients , double flap in one patient.
- type of flap → type of the loss of substance:
- * Upper nasal pyramid: glabellar flap(fig10), Marchac flap (flap of Emmet and Rintala flap.
- *Lower part of the NP: Zitelli flap, Reiger flap (fig12) and Rybka (fig 13)



Fig9: Final result of direct suture nasal reconstruction after removal of a tumor of the right nostril wing: A: profile view, B: front view

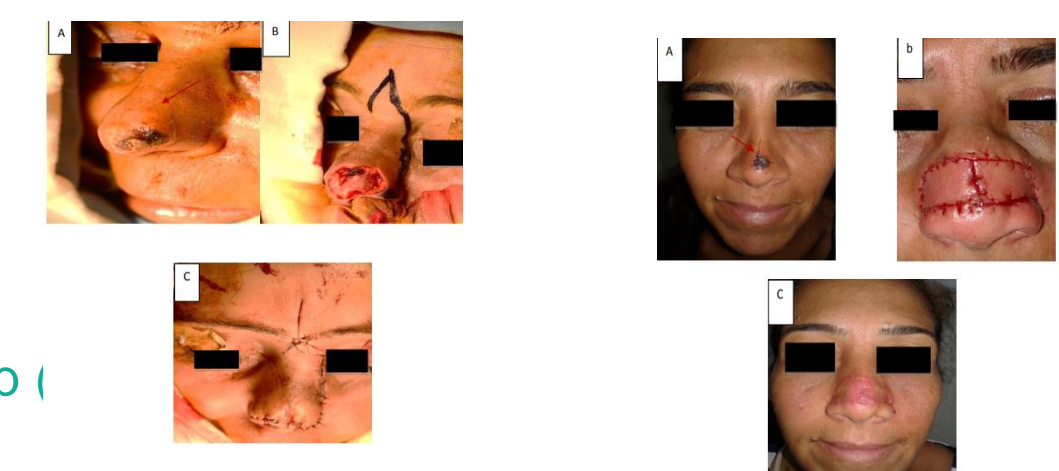


Figure 12: Rieger flap A: Nose tip tumor B: appearance after tumor removal and flap tracing C: Immediate postoperative appearance
 Figure 13: Double Rybka flap A: Nose tip tumorB: Immediate postoperative appearance C: Appearance at 1 month

-Locoregional Flaps: Extensive substance loss (one or more sub units).

*The forehead flap :

- Flap Weaning : average 3 weeks postoperatively.
- Para-median forehead flap (11) ,Sea gull-wing forehead flap (4)
- An oblique forehead flap (4)



Figure 14: Paramedian forehead flap A: Dorsal tumor extending to the root and lateral aspects of the nose B: Immediate postoperative appearance C: Appearance at 15 days post-op D: Appearance after flap weaning
 Figure 15: Nasogenian flap with superior pedicle. Appearance at one month post surgery A: Front view B: Side view

Nasolabial flap:

- Superior pedicle nasolabial flap(5)
- inferior pedicle nasolabial flap (2)
- Island nasolabial flap (5)

Aesthetic results

-38 good results , 17 average results ,5 poor result

Conclusion

- Repairing nasal defects is complicated. Nasal reconstruction procedures are countless, multiple factors help to determine the optimal repair method for the best esthetic result.