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RESEARCH ARTICLE

NASOLABIAL CYST'S: ABOUT 11 CASES.

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Abstract

Introduction: The nasolabial cyst is a non-odontogenic lesion, uncommon of the area of the nostril wing. Few publications were interested in studying the management of this lesion. The objective of our study is to describe the pre-operative aspects and the results of our management of nasolabial cysts and analyse the pre-operative factors influencing these results.

Materials and methods: This was a retrospective study between December 2010 and December 2018 collected in our tertiary hospital structure. It concerned patients operated for a nasolabial cyst confirmed by the anatomo-pathological study. Surgical treatment was performed under general anesthesiaby transoral vestibular approach.

Results: Eleven cases were collected. The cysts were unilateral and located on the left in 9 cases. The median diameter of the cyst was 2,5cm. The cyst's exeresis was complete in all the cases. The accidental breach of the nasal mucosa occurred in 2 cases. Procedure time had a median of 30 minutes. A significant difference in time was observed in case of mucous breach (p = 0.03). The immediate postoperative follow-up was simple. After a median of 15 months, there were no cases of oral fistula or recurrence.

Discussion / Conclusion: The nasolabial cyst is an uncommon benign pathology, currently better known. The literature reported several surgical techniques. Vestibular enucleation remains an accessible method with low morbidity.

Introduction:-

Nasolabial cyst or nasal threshold cyst represents 0,7% of the non-odontogenicmaxillary cysts [1]. It is developed from nasal alar soft tissues. Its treatment is surgical, classically enucleationby transoral vestibular approach[2]. The aim of our work is to describe the preoperative aspects and the results of our management of nasolabial cysts and to analyse the pre-operative factors influencing these results.

Patients and methods:-

This was a retrospective study between December 2010 and December 2018 collected in our tertiary hospital structure. It concerned patients operated for a nasolabial cyst confirmed by the anatomo-pathological study. Surgical treatment was performed under general anaesthesia by transoral vestibular approach without any initial puncture. The dissection was performed by the elevation of a mucoperiosteal vestibular flap to the nasal floor in order to

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enucleate the cyst (figure 1). A possible breach of the nasal mucosa was immediately sutured by Polyglactin 910 diameter 3/0. Collected pre-operative data included the age, sex, cyst location, scanner data (cyst diameter and bone erosion). The duration of the surgical procedure performed by the surgeon and the occurrence of incidents were identified and analysed. Cases with missing data were excluded. P values less than 0.05 were considered statistically significant.

Table 1:-summary of the observations.

		Localisation	Size of cyst (cm)	Bony erosion	Incident	Duration of the surgery (minutes)	Follow-up (months)
1		nasolabial	2,5	present	absent	32	30
2		alar	2,0	present	absent	22	24
3		alar	2,5	absent	breach of the nasal mucosa	42	18
4		labial	2,0	absent	absent	25	14
5		nasolabial	3,0	present	breach of the nasal mucosa	40	6
6		nasolabial	3,0	present	absent	27	2
7		nasolabial	3,5	present	rupture of the cyst	30	18
8		nasolabial	3,0	absent	absent	25	12
9		labial	1,5	present	absent	27	15
10		nasolabial	3,0	present	absent	30	12
11		alar	2,0	absent	absent	35	20
Total	N	11	11	11	11	11	11

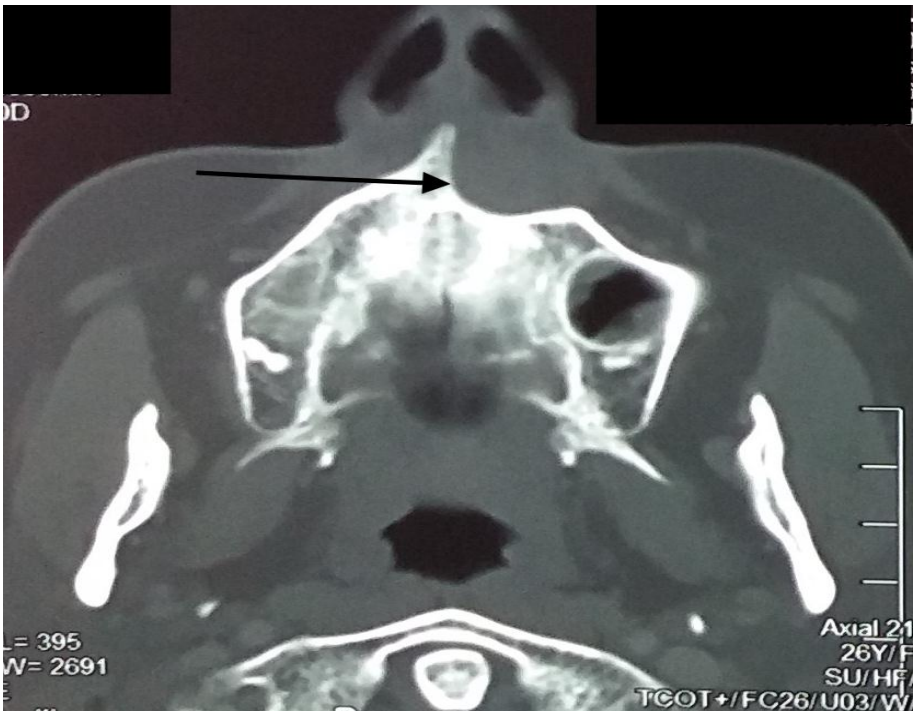

Figure 1:-axialcomputed tomography-scan showing a nasolabial cyst with bony erosion (black arrow)

Figure 2:-surgical aspect after excision of the cyst.

Results:-

Eleven cases were collected. All of the patients were female. The median age was 40 years [interquartile range: 25-45]. The cysts were unilateral and located on the left in 9 cases. The symptom found in 6 cases was the nasolabial swelling. The median diameter of the cyst was 2,5cm [interquartile range: 2 –3] (table 1). There was no correlation between a large cyst volume and the presence of bone erosion (p = 0.434, Mann-Wihtney U test).

The cyst's exeresis was complete in all the cases (figure 2).We had an accidental rupture of the cyst in one case. The accidental breach of the nasal mucosa occurred in 2 cases. It did not exceed 0.5 cm. Procedure time had a median of 30 minutes [interquartile range: 25 –35].

This time was not correlated with cyst's size (p = 0.625, Mann-Wihtney U-test), nor with the presence of bone erosion (p = 0.625, Mann-Wihtney U-test). A significant difference in duration was observed in case of mucous breach (p = 0.03, test U de Mann-Wihtney).There is no correlation between cyst size and the occurrence of mucosal breach (P = 0.625, Mann-Wihtney U-test). The immediate postoperative follow-up was simple. After the 1st month check, there was no swelling next to the nostril wing. For a median of 15 months, there were no cases of oral fistula or recurrence (minimum: 2 months - maximum: 30 months).

Discussion:-

Zukerkandl described the nasolabial cyst for the first time in 1882, it is an entity that has been the subject of several publications mainly in the form of clinical cases [2]. We reported a series of 11 cases of nasolabial cyst including epidemiological and clinical data that showcase the classic picture of this entity. It's a female adult in the fourth decade of life, presenting a progressive swelling in a nasolabial regionwhich is responsible for facial deformity caused by the raising of the nostril and protrusion of the upper lip [3].

Clinical findings were sufficient to suggest the diagnosis. Facial CT is the first-line complementary examination [4]: it allows to specify the size of the cyst, to have a lesion cartography and the presence of a bone erosion alongside. The bone remodeling is thought to be due to the chronicity of the lesion and its volume, which caused pressure on the adjacent bone [4].

Several surgical techniques have been reported in literature. Some have been marked by a high rate of recurrence such as intra-cystic injection of sclerosing material, simple aspiration of the cyst or cauterization [5].Endonasal endoscopic marsupialization is a technique that is beingincreasingly used. Lee et al compared endonasal endoscopic marsupialization under local anesthesia to enucleation via the vestibular approach [6]. He found a lower morbidity rate (less bleeding and postoperative pain) as well as a short duration of surgery in the marsupialization technique. However, the duration of the surgical procedure performed by the vestibular transoral approach had an average of 46.4 ± 5.1 minutes. According to Sheikh et al, there are no differences between the two surgical methods mentioned

above regarding facial / peri-nasal oedema, pain or recurrence rate[2]. Ramannaet alrecommend the use of the vestibular approach in case of large cyst: There is a higher risk of recurrence in endonasal endoscopic marsupialization compared to the vestibular approach [7].

Vestibular enucleation remains the most used technique. It allows the complete excision of the cystand therefore prevents recurrences [8]. Yeunet al reported that the rupture of the cyst was a predictor of recurrence [5]. We had an accidental rupture but we have not yet noted a recurrence after 18 months of follow-up.this surgical technique can cause a breach of the nasal mucosa.This breach is re-established without sequelae when it is small; as is the cases in our series.Though, the small number of casesin our study was a limitation of our analysis.One case of malignant degeneration has been reported in the literature [9].

Conclusion:-

Nasolabial cyst is a rarely encountered benign pathology, currently better known. The literature reported several surgical techniques. Vestibular enucleation remains an accessible method with low morbidity.

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