

Sublabial rhinotomy in the management of sinonasal inverted papilloma

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INTRODUCTION

Inverted papilloma in the nose and paranasal sinuses is a histologically benign tumour but it has a high probability of recurrence, even after adequate surgical treatment. An association between inverted papilloma and carcinoma is also well established (Hyams, 1971; Vrabc, 1975).

Treatment of inverted papillomas is always surgical and many authors recommend lateral rhinotomy and medial maxillectomy as the method of choice (Seagal et al., 1986; Smith and Cullane, 1987). This method provides good exposure to the nasal cavity and paranasal sinuses but it may leave a fairly prominent scar in the midfacial area. Conly and Preece (1979) and Allen and Siegel (1981) described a sublabial approach to the nasal and paranasal cavities. Since 1983 in Turku we have used this method as routine treatment for papillomas and other benign and also malignant tumours of the sinonasal region. We use the term "sublabial rhinotomy", because this procedure provides good exposure to the nasal cavity, paranasal sinuses, nasopharynx and also to the osseous pyramid and septum.

MATERIALS AND METHODS

15 patients, 3 women and 12 men were operated upon for inverted papilloma of the sinonasal region at the Department of Otorhinolaryngology, Turku University Central Hospital, Finland, during the years 1983-1986. Sublabial rhinotomy and medial maxillectomy were performed in all cases. All tumours were widespread to the nasal cavity and maxillary and ethmoidal sinuses. All patients were examined postoperatively and the minimum follow-up time was two years.

SURGICAL TECHNIQUE

The procedure was performed under general anaesthesia. Local anaesthesia with epinephrine was used to help control bleeding.

A complete transfixion incision is made between the columella and septum. Bilateral intercartilaginous incisions between the upper and lower lateral cartilages are made and bilateral pyriform aperture incisions along the border of the pyriform aperture (Figure 1).

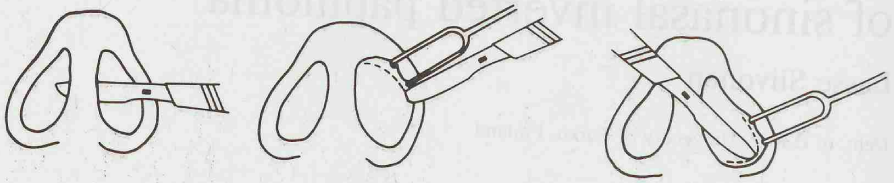


Figure 1. Transfixion incision, intercartilaginous incision and pyriform aperture incision.

A sublabial incision is made in the gingivolabial sulcus as far as the maxillary tuberosity on either side. This incision is made down to the periosteum which is elevated with soft parts of the nose and midface to the margins of the nasal pyramid and as far as the infraorbital nerve (Figure 2).

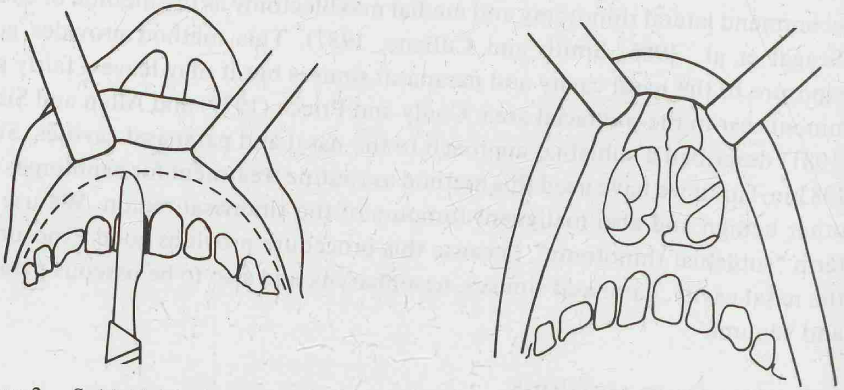
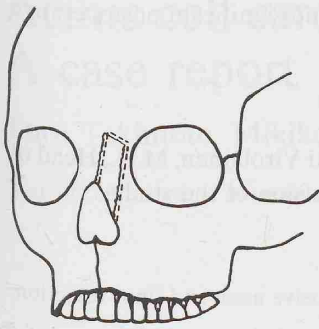


Figure 2. Sublabial incision and elevation of the soft parts of the nose and midface.

If the tumour spreads to the cribriform palate and/or to the nasofrontal duct, medial, lateral and transversal osteotomies are performed to expose this area by retracting the nasal bone and the frontal process of the maxilla (Figure 3). The maxillary sinus is opened with a burr or chisel. The medial wall of the maxillary sinus, inferior, middle and superior turbinates are removed (Figure 4). Haemostasis is achieved with electrocauterization and packing, clips or ties may be necessary in some cases. The operator must be sure that all mucous membranes are removed and all bone edges are smoothed. The cavity is packed with gauze, impregnated with an antibiotic solution. Soft tissues are replaced and incisions are sutured with Dexon® sutures. A tape splint is applied to the nose and midface. Packing and tapes are removed on the second or third postoperative day.

If osteotomies are performed, the tape split must be left in place for a week. Post-operative antibiotic prophylaxis is given for one week.



Figur 3. Osteotomies for exposure of the nasofrontal duct and cribriform plate areas.

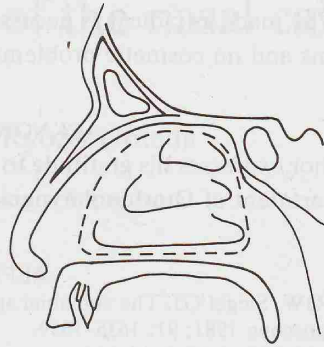


Fig. 4. Line showing resection margins of the medial maxillectomy.

Table 1. Follow-up data of patients treated for inverted papilloma.

pat. no.	age	sex	disease status at last contact	duration of hospitalization/sick-leave (days)	crusting (subj.)	crusting (obj.)	sensitivity to cold	local pain	paresthesia
1	30	F	ned	7/30	+	-	+	-	-
2	45	M	ned	7/30	-	-	+	-	-
3	31	M	r	10/30	++	-	-	-	-
4	51	M	r	12/21	-	-	+	-	-
5	67	M	r	30/- *	++	+	-	+	-
6	48	M	ned	11/34	-	-	+	-	-
7	46	M	ned	9/26	+	-	++	-	-
8	66	F	ned	11/-	+++	+++	-	-	-
9	50	M	r	6/60	+	-	+	-	-
10	46	M	ned	8/35	-	-	-	-	-
11	60	M	ned	5/-	-	-	-	-	-
12	32	M	ned	8/35	+	+	-	-	-
13	70	M	ned	7/-	-	-	-	-	-
14	39	M	ned	8/60	+	+	+	+	-
15	41	F	ned	4/30	++	-	-	-	+

* preoperative CFS-leak and postoperative meningitis

F =female;

M =male;

ned =no evidence of disease;

r =recurrence;

- =no detectable;

+ =mild;

++ =moderate

+++ =severe

CONCLUSION

Sublabial rhinotomy provides an excellent method for the treatment of wide-spread tumours in the sinonasal region. Surgical exposure is good and the resection can be made as radical as necessary. There are no significant postoperative symptoms and no cosmetic problems.

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