Management of benign parotid tumors. What can we learn from our experience?

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AIM: *Parotid gland is the most common location for salivary gland tumors, more commonly pleomorphic adenoma and Warthin's tumor. Types of parotid surgery include superficial parotidectomy (SP), partial superficial parotidectomy (PSP), total conservative parotidectomy (TCP), enucleation (E), extracapsular dissection (ECD), and are related to different incidence of complications. The choice depends on tumors localization, dimension and histology. The aim was to compare complications rate such as facial and great auricular nerve impairment and Frey syndrome according to type of surgery performed.*
MATERIALS AND METHODS: *We retrospectively review the management of 116 benign tumors of the parotid gland treated between January 2004 and January 2020 at our Department.*
RESULTS: *Most frequent complication observed was a GAN deficiency (22.41%), permanent in 13% of cases. Post-operative facial nerve impairment was observed in 19 patients (persistent only in 1 case). Only Frey syndrome (4,31% of cases) seemed to be related to type of surgery ($p<0.05$) resulting more frequent in the group of patients that underwent "classical" parotidectomy, while facial nerve impairment, even if more frequent in this cases, did not statistically correlated with operative technique ($p=0.054$).*
CONCLUSIONS: *Once experience is gained, in order to reduce post-operative morbidity extracapsular dissection is a reliable technique in the management of these neoplasms, even if attention has to be paid particularly in the removal of superficial masses "emerging" from the parenchyma. PSP is an alternative to SP, while CTP has to be reserved to selected cases ot tumors arising in the deep lobe.*

KEY WORDS: Benign tumor, Extracapsular dissection, Enucleation, Facial nerve Parotid gland, Parotidectomy, Superficial parotidectomy

Introduction

The parotid gland is the most common location for salivary gland tumors, comprising 60-75% of all cases; the majority (80%) of these neoplasms are benign, but are heterogeneous in their ability to recur and/or transform into malignant lesions [1,2]. Most common benign neoplasms are pleomorphic adenoma and Warthin's tumor [3]. Usually patients referred a long-standing history of a painless, palpable mass; diagnostic tools include preferably MRI and ultrasound, eventually associated with FNAC [4,5]. Biopsy is reserved to suspect malignat lesions in which citology is not diagnostic [6].
The mainstay of treatment is complete surgical excision; types of parotid surgery include superficial parotidectomy (SP), partial superficial parotidectomy (PSP), total conservative parotidectomy (TCP), enucleation (E), extracapsular dissection (ECD) [7]. Obviously, incidence of complications, such as recurrence, facial nerve impairment, Frey syndrome, great auricular nerve damage

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depend on type of surgery performed [8,9]. The choice depends on tumors localization, dimension and histology. On these bases, it is fundamental to obtain a pre-operative diagnosis. Since pleomorphic adenoma is the most frequent neoplasm arising in the parotid gland, most papers focused attention on the incidence of relapse of this tumor according to type of surgery performed [10,11]. We retrospectively review the management of benign tumors of the parotid gland treated between January 2004 and January 2021 at our Department. The aim was to compare complications rate such as facial and great auricular nerve impairment and Frey syndrome according to type of surgery performed (total conservative parotidectomy, superficial parotidectomy, partial superficial parotidectomy, enucleation and extracapsular dissection). For every surgical procedure tumor size, localization and histology have been considered.

Materials and Methods

Patients Data

A retrospective review of patients that underwent parotid gland surgery to remove a benign neoplasm at our department between January 2004 and January 2020 was performed.
Inclusion criteria considered were:
1) histological diagnosis of benign neoplasm originating from parotid gland;
2) no previous parotid gland surgery;
3) pre-operative CT or MRI imaging and fine-needle aspiration (FNAC);
4) procedure performed by experienced surgeons (at least 30 procedures/year);
5) all surgeries performed through trans-parotid access (Blair modified or face-lift incision);
6) minimum follow-up of 1 year.
Demographics data included sex and age; disease characteristics included tumor size (< 2,5 cm and > 2,5 cm assessed on specimen), localization and histological type. Treatment data included type of surgery: total conservative parotidectomy (TCP), superficial parotidectomy (SP), partial superficial parotidectomy (PSP), extracapsular dissection (ECD) and enucleation (E). The division between ECD and E was assed on the bases of definitive histopathological examination (the absence of at least 2 mm of free tissue around the mass leads to classification into enucleation group).
For each case the presence of surgical complications such as temporary and permanent (any facial nerve palsy from which the patient did not recover fully, within a minimum follow-up period of one year) facial nerve palsy, Frey syndrome and permanent deficiency of GAN (defined as any lobule and preauricular anesthesia from which the patient did not recover within a minimum follow-up period of 6 months) were recoded.

Surgical technique: Superficial and partial superficial parotidectomy (6,12)

A Blair incision is performed in the preauricular skin crease, carried around the earlobe and then extended into the neck (in alt. According to tumor localization and size, it is eventually possible to perform a facelift or "omega" incision to avoid visible scars. The skin and the superficial muscularaponeurotic system (SMAS) are raised. The SMAS flap can then be re-attached to minimize cosmetic deformity as well as Frey syndrome. The posterior branch of the great auricular nerve is preserved by careful dissection along the nerve after its identification while raising the cervical subplatysmal flap. After identification of the facial nerve and all of its branches a superficial parotidectomy is performed. The approach that is usually employed is the anterograde dissection. It involves the identification of the main trunk of FN at its landmarks, such as the posterior belly of the digastric muscle and the tragal pointer, followed by a dissection towards the peripheral branches with simultaneous mobilization of parotid tissue anteriorly and laterally. Alternatively, the retrograde approach provides that the dissection is performed starting from one of the peripheral branches of the nerve, subsequently following their course back to the bifurcation of the common trunk. Eventually a portion of the superficial lobe can be preserved in order to perform a *partial superficial parotidectomy.*

Total Conservative parotidectomy

Once the superficial lobe is removed, branches of the facial nerve are dissected and freed from the capsule of the tumour and the nerve is gently mobilised. The tumour is then delivered through this opening in a three-dimensional manner with a combination of blunt and sharp dissection. The deep lobe is removed.

Extracapsular dissection

After permorming coutaneous incision, we proceed raising the SMAS flap and preserving the posterior branch of the great auricular nerve as described for the parotidectomy. In this case the tumor is removed with only the immediate pseudocapsule (mantaining 2-3 mm of free margins) [11,14] without identifying the facial nerve. Usually, a dissection of one or more peripheral branch of the nerve is anyway necessary. In no cases intraoperative neuromonitoring was used. We have to notice that some authors [9] consider for extracapsular dissection a margin of 1,5 cm, while in our report we consider it as a PSP.

Enucleation

Once the SMAS flap is raised, the mass is identified so

that is dissected and excised without free tissue while sparing the capsule.
For this study, we classified as "enucleation" all cases in which definitive histopatological examination wasn't able to identify at least 2 mm of parenchyma all around the mass.

Follow-Up

Patients were followed up over time through clinical examinationm and imaging tests (ultrasound and/or MRI) every 3-6 months for a period of at least 1 year in order to evaluate the presence the presence of early post-operative complications.

Statistical Analysis

The sample was analyzed through descriptive statistics, using mean and standard deviation for quantitative variables, and absolute and percentage frequencies for categorical ones. The results were summarized in graphs and tables. The differences between the groups for the quantitative variables were assessed by ANOVA test, useful in comparing more than two groups, while for the qualitative variables by the Chi-square test or Fisher's test if present modalities with frequency <5. The significance level was set p <0.05, all analyzes were conducted with the STATA software version 13 (StataCorp Release 13. College Station, TX).

Results

The patients enrolled in the study were 116 (58 males and 59 females), with a mean age of 57.5 yrs (range: 18-82 years). Medium follow-up period was 7.1 years (range: 12-180 months). Sample characteristics are illustred in Table I-II. In 72 (62.07%) patients the tumor was located in the superficial lobe, in 38 (32.76%) in the inferior and in 6 (5.17%) in the deep lobe. In 56 cases (48.27%) the major diameter of the lesion was > 25mm, while in 60 (51.72%) was < 25mm. Definitive histological examination revealed a pleomorphic adenoma in 64 (55.17%) patients, a Warthin's tumor in 43 (37.07%), an oncocytoma in 6 (5.17%) and a myoepithelioma in 3 (2.59%). All patients underwent preoperative FNAC examination. Eighty-five (73.27%) corresponded to definitive histopathological diagnosis, 4 (3.44%) did not correspond and 27 (23.27%) were not diagnostic. Six patients (5.17%) underwent a TCP, 40 (34.48%) a SP, 18 (15.52%) a PSP, 25 (21.55%) an ECD and 27 (23.28%) an E. In all cases a complete

Table I - *Sample characteristics (qualitative variables)*

Variabels		Frequency (N=116)	Rate
Gender	F	59	50.86%
	M	57	49.14%
Size	< 25 mm	60	51.72%
	≥ 25 mm	56	48.28%
Location	Deep lobe	6	5.17%
	Inferior pole	38	32.76%
	Superficial lobe	72	62.07%
FNAC	PA	53	45.69%
	W	33	28.45%
	M	1	0.86%
	O	1	0.86%
	Not diagnostic	27	23.28%
	Not correspond toHistopathological examination(SC,O,M)	3	2,58%
Histologicalfindigs	PA	64	55.17%
	M	3	2.59%
	O	6	5.17%
	WT	43	37.07%
Surgery technique	E	27	23.28%
	ECD	25	21.55%
	SP	40	34.48%
	PSP	18	15.52%
	TCP	6	5.17%
Frey syndrome		5	4.31%
FN paralysis		19	16.38%
- Transient FN paralysis		18	15.52%
- Permanent FN paralysis		1	0.86%
GAN deficiency		26	22.41%
- Permanent GAN deficiency		15	12.93%

TABLE II - *Differences in sample characteristics by type of surgery technique*

		E		ER		PS		PSP		PT		
		n	%	n	%	n	%	n	%	n	%	p-value
Gender	F	10	37.0%	14	56.0%	21	52.5%	10	55.6%	4	66.7%	0.554
	M	17	63.0%	11	44.0%	19	47.5%	8	44.4%	2	33.3%	
Size	<25 mm	10	37.0%	14	56.0%	23	57.5%	10	55.6%	3	50.0%	0.534
	≥25 mm	17	63.0%	11	44.0%	17	42.5%	8	44.4%	3	50.0%	
Location	Deep lobe	0	0.0%	0	0.0%	0	0.0%	0	0.0%	6	100.0%	<0.001
	Inferior pole	11	40.7%	10	40.0%	4	10.0%	13	72.2%	0	0.0%	
	Superficial lobe	16	59.3%	15	60.0%	36	90.0%	5	27.8%	0	0.0%	
FNAC	PA	8	29.6%	10	40.0%	19	47.5%	13	72.2%	3	50.0%	0.074
	SC	0	0.0%	0	0.0%	1	2.5%	0	0.0%	0	0.0%	
	M	0	0.0%	1	4.0%	0	0.0%	0	0.0%	0	0.0%	
	ND	3	11.1%	6	24.0%	12	30.0%	3	16.7%	3	50.0%	
	O	1	3.7%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	
	WT	15	55.6%	8	32.0%	8	20.0%	2	11.1%	0	0.0%	
Histological findings	PA	8	29.6%	12	48.0%	23	57.5%	15	83.3%	6	100.0%	0.005
	M	0	0.0%	1	4.0%	2	5.0%	0	0.0%	0	0.0%	
	O	1	3.7%	2	8.0%	2	5.0%	1	5.6%	0	0.0%	
	WT	18	66.7%	10	40.0%	13	32.5%	2	11.1%	0	0.0%	

TABLE III - *Complications by type of surgery technique*

	E		ER		PS		PSP		PT		
	n	%	n	%	n	%	n	%	n	%	p-value
Frey syndrome	0	0.0%	0	0.0%	3	7.5%	0	0.0%	2	33.3%	0.010
FN paralysis	1	3.7%	3	12.0%	11	27.5%	2	11.1%	2	33.3%	0.054
- Transient FN paralysis	1	3.7%	3	12.0%	10	25.0%	2	11.1%	2	33.3%	0.087
- Permanent FN paralysis	0	0.0%	0	0.0%	1	2.5%	0	0.0%	0	0.0%	0.999
GAN deficiency	6	22.2%	6	24.0%	5	12.5%	8	44.4%	1	16.7%	0.119
- Permanent GAN deficiency	5	18.5%	3	12.0%	3	7.5%	4	22.2%	0	0.0%	0.431

resection of the disease was achieved and in no cases intraoperative neuromonitoring was used.
Most frequent complication (26 pts) observed was a GAN deficiency (22.41%), permanent in 15 patients (13%). Post-operative facial nerve impairment was observed in 19 (16.38%) patients; between them, 18 (15.52%) patients fully recovered in a mean of 4.8 months (SD = 3.4), while a permanent palsy was reported only in 1 (0.86 %) case. Frey syndrome was found in 5 (4.31%) patients. Complications according to operative technique are described in Fig. 1. None of the operated patients presented a relapse in the follow-up period.

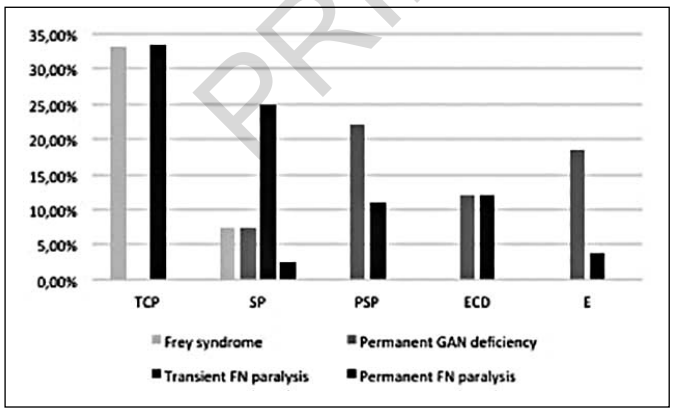

Fig.1: Complications according to operative technique.

TCP Group: Of the patients treated with TCP (5.17%), 2 were male (33.3%) and 4 were female (66.6%) with a mean age of 44 years; in all patients (100%) the tumor was located in the deep lobe; in 3 (50%) the lesion had the major diameter > 25mm and in 3 (50%) < 25mm. The tumor hystotipe was a pleomorphic adenoma in all patients (100%); 2 (33.3%) patients reported temporary FN paralysis fully recovered in a mean time of 9.5 months; 2 developed Frey syndrome (33.3%); none reported permanent FN paralysis and permanent GAN deficiency.

SP group: In the group of patients treated with SP (34.48%), 19 were male (47.5%) and 21 female (52.5%) with an a mean age of 58.7 years; in 17 patients (42.5%) the major diameter of the lesion was > 25mm and in 23 (57.5%) was < 25mm; in 36 (90%) the lesion was located in the superficial lobe and in 4 (10%) in the inferior pole; the tumor histotype was a pleomorphic

adenoma in 23 cases (57.5%), a Warthin tumor in 13 (32.5%), an oncocytoma in 2 (5%) and a myoepithelioma in 2 (5%); 10 (25%) patients reported temporary FN paralysis fully recovered within 3.4 months, 1 (2.5%) patient reported permanent FN paralysis, 3 (7.5%) developed Frey syndrome and 3 (7.5%) had permanent GAN deficiency.

PSP group: Of the patients treated with PSP (15.51%) 8 were male (44.44%) and 10 were female (55.5%) with a mean age of 54.9 years; on MRI 8 lesions (44.4%) had a diameter > 25mm and 10 (55.5%) a diameter < 25mm; in 5 cases (27.8%) the lesion was superficial and in 13 (72.2%) it was located in the inferior pole; the histotype resulted in a pleomorphic adenoma in 15 patients (83.3%), a Warthin's tumor in 2 (11.1%) and an oncocytoma in 1 (5.5%) patient; 2 (11.11%) patients reported temporary FN palsy fully recovered in a mean of 6 months, 4 (22.2%) reported permanent deficit of GAN; none reported permanent FN palsy and Frey syndrome.

ECD group: The group treated with ECD (21.55%), 11 were male (44%) and 14 female (56%) with a mean age of 55.28 years; on MRI in 11 (44%) the lesion had a diameter > 25mm and in 14 (56%) the diameter was < 25mm; in 15 (60%) cases the tumor was located in the superficial lobe and in 10 (40%) in the inferior pole; histopathological finding reported a pleomorphic adenoma in 12 cases (48%), a Warthin's tumor in 10 (40%), an oncocytoma in 2 (8%) and a myoepithelioma in 1 patient (4%); 3 (12%) patients reported temporary FN paralysis fully recovered in a mean time of 6 months; 3 (12%) patients reported permanent GAN deficiency; none of the patients reported permanent FN paralysis and Frey syndrome.

E group: The group treated with E (23.27%), 17 were male (63%) and 10 were female (37%) with a mean age of 62.37 years. On MRI in 17 cases (62.96%) the lesion had a diameter > 25mm and in 10 (37.03%) the diameter was < 25mm; in 16 (59.25%) cases it had a superficial localization and in 11 (40.74%) it was located in the inferior pole; the histotype resulted in a pleomorphic adenoma in 8 patients (29.62%), a Warthin's tumor in 18 (66.66%) and an oncocytoma in 1 patient (3.7%). In fact, Warthin's tumor was found to be the most frequent histological type in this group, with a significative correlation to this type of surgery ($p<0.05$) (Table II). One (3.7%) patient reported temporary FN paralysis fully recovered in 4 months; 5 (18.51%) reported permanent GAN deficiency; none of the patients reported permanent FN palsy nor Frey Syndrome.
The only variable statistically related to operative technique was tumor site ($p<0.05$) (Table II); regarding complications, only Frey syndrome seemed to be related to type of surgery ($p<0.05$) resulting more frequent in the group of patients that underwent "classical" parotidectomy, while facial nerve impairment, even if more frequent in this cases, did not statistically correlated with operative technique ($p=0.054$) (Table III).

Discussion

Tumors of the salivary glands comprise 2% - 4% of neoplasms in the head and neck; between them, three-quartes are benign , and in 70% of cases originate in the parotid gland[2,9,12,13]. Around 85% of parotid tumors reside in the superficial lobe, 11% in the deep lobe, and 1% in the accessory lobe. As we found in our experience, most common benign neoplasms found in the parotid are pleomorphic adenomas (53.3%-85%), Warthin's tumors (25%-32%), Basal cell adenoma (2% to 7%), Myoepitheliomas (1% to 3%), Oncocytomas (1%) [2,15]. Pleomorphic adenomas of the major salivary glands are encapsulated, whereas those from minor salivary glands are not, and tumors located in the deep lobe have a thicker capsule than those in the superficial lobe [2,11]; nevertheless, the capsule consists of variably thick, dense, fibrous tissue that may be discontinuous or absent or become invaded and even penetrated by a tumor [11]. Where the capsule is absent, tumor invades adjacent tissue either as a broad advancing front or as small mammillations bulging out from the main mass, creating the so-called tumor satellites [11]. Combining these observations with those concerning facial nerve preservation, the use of superficial parotidectomy was traditionally recommended on the grounds that tumor satellites may be missed during enucleation [11,16,17], that entails the incision of the capsule and the removal of the content within the borders of the tumor [14]. The identification and preservation of the facial nerve are the most crucial steps during formal parotidectomy, that by the 1950s became established as the appropriate treatment for benign parotid tumors with a recurrence rate below 2% [12,18,19]. Suddenly many efforts have been made in order to indentify less invasive approaches in order to prevent post-operative morbidity and complications, so that PSP and ECD have been proposed [8]. Performing extracapsular dissection (ECD) the parotid tissue is opened near the lesion and the tumor – surrounded by some millimeters of healthy issue – is removed. The main difference to SP is that the main trunk of the FN is not routinely dissected, even if in most cases one or more branches of the FN are identified and dissected, eventually using intraoperative neuromonitoring (IONM) [14]. Post-operative facial nerve disfunction is the most common early complication of parotid surgery. Temporary (any weakness of the facial nerve completely recovered by the patient after surgery) and permanent (any nerve weakness not fully recovered within a minimum follow-up period of one year) facial nerve paralysis occur respectively in 9.3%-64.6% and 0%-8% of cases, according to

our results. Cases of transient facial nerve paresis generally resolve within 6 months, with 90% within 1 month [20-22]. Effectivness, a meta-analisys showed that superficial parotidectomy has a higher incidence of facial nerve paralysis and Frey syndrome than extracapsular dissection [8]; we fail to find a significant differences of incidence in patients undergoing formal parotidectomy and extracapsular dissection (p=0.054), even if the complication rate was obviuosly higher in the first group. Neverthless we agree with other authors assessing that extracapsular dissection must be performed by a surgeon who has big experience in superficial and total parotidectomies, facial nerve reconstruction and who perfectly navigates in the topographical anatomy of the parotid gland for two main reasons: first of all, an inexperienced surgeon can fail to identify and preserve a facial nerve branch adjacent to the mass, causing a facial palsy. Suddenly, he could convert extracapsular dissection to intracapsular dissection causing non-radical tumor resection [23]. In addiction, according to a previous perspective study, we think that partial superficial parotidectomy can be eventually be performed instead of superficial paothidectomy, since it is associated with low rates of morbidity to the facial nerve (27,5% versus 11,1% in our experience) [24]. Frey syndrome was first described by Lucie Frey in 1923 and was termed "auriculotemporal syndrome". It described sweating and flushing in the preauricular area in response to mastication or a salivary stimulus. Initially thought to be rare, it was later recognized as a common occurrence after salivary gland surgery, occurring in 4% to 62% of postparotidectomy patients, 6 to 18 months after surgery. The synkinetic mechanism for Frey syndrome is aberrant reinnervation of postganglionic parasympathetic neurons to nearby denervated sweat glands and cutaneous blood vessels. Consequently, this results in flushing and sweating in the sympathetically void skin in response to mastication and salivation. The surgical prevention of Frey syndrome is based on the incorporation and maintenance of a barrier between the underlying postganglionic parasympathetic nerve endings within the transected parotid and the overlying cutaneous tissue. Many techniques aimed at accomplishing this have been described and include increased skin flap thickness, local fascia (SMAS) or muscle flaps, and the use of acellular dermal matrix (ADM) or free fat grafts [12,14,25]. We routinely raise a SMAS flap in order to prevent this complication observed in 4% of cases, that according to literature in our experience was significally related to type of surgery (p<0.05) resulting more frequent in the group of patients that underwent "classical" parotidectomy, probably due to the wider surgical field required [8]. Even if classically the great auricular nerve is sacrificed during parotd surgery, we routinely preserve the posterior branch [12]. Neverthless, sensory loss was the more frequent complication observed in our experience (22.41%), resulting permanent in 13% of cases. Since the surgical approach was the same for every operative technique (modified Blair or facelift incision and SMAS flap), no significant difference were observed in all groups. Other than facial nerve impairment, another factor related to parotid gland surgery, particularly for that is concerning with pleomorphic adenoma, is local recurrence [26]. Main limitation of our retrospective study is the short follow-up period (minimun 1 year, vith a medium follow-up of 7.1 years): even if recurrence was observed in no cases, we have to precise that the time interval from the initial treatment can be as long as 15 years [26]. Another one is the limited sample, that does not permit us to perform a multivariate analysis of the data. It is assod that SP, PSP, CTP and ECD (this last in the hands of an expert surgeon) are reliable techique in order to obtain a radical resection [11,23]. On the other side, enucleation is to consider only in selected cases such as unifocal Warthin's tumors [27]. Obviously, it is mandatory to make a correct preoperative correct diagnosis in order to identify those selected cases suitable for this kind of surgery. MRI is the gold-standard examination for surveillance and for characterisation and extension assessment of supracentimetric parotid lesions; while in the subcentimetric ones ultrasound is recommended in first line Contrast-enhanced CT is an alternative to MRI in case of contraindications. Fine-needle aspiration cytology (FNAC), performed immediately after MRI or later to circumvent interpretation artifacts, shows very good diagnostic performance for benign tumours in general and for PA in particular and is particularly recommended for tumours difficult to characterise on MRI (subcentimetric, or with atypic signal) (28). On the base of our data, FNAC resulted diagnostic in 73% of cases. Nevertheless, analyzing our experience it results that we have performed this kind of surgery to remove PA in eight patients, resulting in one case of temporary facial nerve impairment. As previously precised, we classified as "enucleation" all cases in which definitive histopatological examination able to identify at least 2-3 mm of free tissue all around the mass. All PA "enucleated", arised in the superficial lobe but one (inferior pole), and in all cases the tumor resulted completed excised, but it was possible to identify only a partial "coverage" of free tissue. Since we considered only cases treated by expert surgeon, we can explain these results in three ways: 1) this reflect the fact that ECD can be "failed" also in their hands 2) more in those of superficial neoplasms, not completely surronded by glandular parenchyma, in which is easier to not to keep a margin of 2 mm of free tissue at the SMAS level; 3) the mass is sometimes strictly adjiacent to a facial nerve branch , so that in order to preserve it, it is necessary to perform a dissection close to the capsule.

Conclusions

Superficial parotidectomy at today remain an universal solution for the removal of parotid gland benign tumors,

and has to be a main step in the training of an ENT surgeon. Once experience is gained, in order to reduce post-operative morbidity extracapsular dissection is a reliable technique in the management of these neoplasms, even if attention has to be paid particularly in the removal of superficial masses "emerging" from the parenchyma or close to a facial nerve branch. PSP is an alternative to SP, while CTP has to be reserved to selected cases ot tumors arising in the deep lobe.

Riassunto

*S*COPO: I tumori primitivi della parotide sono neoplasie rare e rappresentano circa l'1-3% di Tutti I Tumori Della Regione Testa-Collo. Fortunatamente, La Maggior Parte (75%-85%) È Di Natura Benigna, Nella Maggior Parte Dei Casi Adenoma Pleomorfo E Tumore Di Warthin. L'escissione Chirurgica Rappresenta L'opzione Più Efficace Nel Trattamento Delle Neoplasie Benigne Della Parotide; Tuttavia, Il Tipo E L'estensione Della Procedura Chirurgica Sono Stati A Lungo Oggetto di dibattito. L'asportazione chirurgica con preservazione del nervo facciale può essere effettuata mediante differenti metodiche (caratterizzate da una differente incidenza di complicanze), quali la parotidectomia superficiale (SP), la parotidectoma parziale superficiale (PSP), la parotidectomia totale conservativa (TCP), l'enucleazione (E), la dissezione extracapsulare (ECD). La scelta si basa sulla dimensione, sull'istologia e sulla localizzazione della neoplasia. Scopo dello studio è comparare l'incidenza di complicanze quali deficit del nervo facciale e del nervo grande auricolare e sindrome di Frey in base al tipo di chirurgia effettuata.

Materiali And Metodi: Viene riportata un'analisi retrospettiva circa il management di 116 casi di tumori benigni trattati tra il Gennaio 2004 ed il Gennaio 2020 presso il nostro Dipartimento. I criteri di inclusione considerati sono stati: pazienti operati per malattia neoplastica benigna, pazienti sottoposti in fase preoperatoria a imaging TC o RM e agoaspirato, procedure eseguite da chirurghi esperti (almeno 30 procedure/y).

Risultati: Tutti i pazienti hanno effettuato agoaspirato (FNAC). Ottantasei (74,13%) corrispondevano alla diagnosi istologica, 3 (2,58%) non corrispondevano all' istologico e 27 (23,27%) non sono risultati diagnostici.

Sei pazienti (5,17%) hanno subito una PT, 40 (34,48%) una PS, 18 (15,52%) una PSP, 25 (21,55%) un'ER e 27 (23,28%) un'E. Solo da sindrome di (4,31% dei casi) è risultata essere statisticamente correlata al tipo di chirurgia effettuata ($p<0.05$), essendo più frequente nel grupppo di pazienti sottoposti a parotidectomia "classica", mentre il deficit del nervo facciale, seppure più frequente in questo gruppo di pazienti, non ha mostrato una correlazione statisticamente significativa ($p=0.054$).

Conclusioni: Dai nostri risultati possiamo concludere che tecniche conservative come E, ER e PSP siano associate ad una minore morbilità rispetto a PS e PT. Infatti sono state rispettivamente meno correlate a stupor, paralisi del VII NC e sindrome di Frey. Per quanto riguarda il deficit permanente del NGA possiamo asserire che la tecnica impiegata non ha influito sulla sua comparsa in quanto l'incisione e l'accesso chirurgico sono stati gli stessi per tutti i tipi di resezione effettuate. Nelle mani di chirurghi esperti, al fine di ridurre la morbidità postoperatoria, la dissezione extracapsulare rappresenta una metodica ottimale nel trattamento delle neoplasie benigne della parotide. La PSP rappresenta un'alternativa alla SP, mentre la CTP deve essere riservata ai casi ad origine dal lobo profondo.

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