

**'Experience in Parotidectomy procedure at the king Abdul-Aziz university hospital (KAUH).**

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**Abstract:** The parotid glands are paired major salivary glands and are located in the pre-auricular region. Parotidectomy is a surgical procedure that involve removal of all portions of the parotid gland. The most common Parotidectomy complications are sensory deficit, temporary facial nerve paresis, sialocoele, post-operative bleeding, wound infection. In our study we aimed to evaluate the complications of the parotidectomy in our institution, to present the recommendation to avoid this complication. A retrospective study for 49 patients in 2015, king Abdul-Aziz University, Jeddah, to identify the complications of the parotidectomy in our institution. Our study included 49 patients in 2015, in which 57.15% female and 42.85% male. benign neoplasm was (67.34%) compared to (32.65%) malignant. the most common type is total parotidectomy (51%) followed by superficial parotidectomy (30.64%) and partial parotidectomy (18.36%). 67% of discharged home with no complication, 33% extended admission.

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**Key Words:** parotidectomy parotid tumor, superficial parotidectomy, total parotidectomy

### 1. Introductions: -

The parotid glands are paired major salivary glands and are located in the pre-auricular region. Parotidectomy is a surgical procedure that involve removal of all portions of the parotid gland. [1] Indications of parotidectomy include inflammatory, infectious and neoplastic conditions: Chronic recurrent parotitis, cystictumours (haemangioma, lymphangioma and branchiogenic cysts), parotid gland tumor both benign and malignant lesions and skin cancer was also one of the indication for parotidectomy.[2][3]

The most common Parotidectomy complications are sensory deficit, temporary facial nerve paresis, sialocoele, post-operative bleeding, wound infection and Frey syndrome which is characterized by episodic facial gustatory flushing and/or sweating, with cutaneous distribution of the auriculo-temporal nerve. [4]

In our study we aimed to evaluate the complications of the parotidectomy in our institution, to present the recommendation to avoid this complication.

### 2. Methodology:

A retrospective study for 49 patients in 2015, king Abdul-Aziz University, Jeddah, to identify the complications of the parotidectomy in our institution and to present the recommendation to avoid this complication. We are looking for patient (age, gender, name) and our outcome were (hospital admission, hematoma, wound infection, facial weakness, Frey syndrome, patient improved) we will review the electronic files from hospital medical record.

### 3. Results:

Our study included 49 patients in 2015, in which 57.15% female and 42.85% male, benign neoplasm was (67.34%) compared to (32.65%) malignant. the most common type is total parotidectomy (51%) followed by superficial parotidectomy (30.64%) and partial parotidectomy (18.36%).

67% of discharged home with no complication, 33% extended admission.

### 4. Discussion:

The parotid glands are the major salivary glands located in the pre-auricular region bilaterally which

are roughly pyramidal in shape with the main part overlap the masseter muscle. [5] It's two parts a superficial and a deep portion splits by the facial nerve, which passes through the gland. These two "lobes" are surgically important as neoplasms involving the deep part may require significant dissection and manipulation of the facial nerve to allow full excision. The superficial lobe is the bigger, thereby the majority of parotid tumors arise from it.[6][7]

The facial nerve courses through the substance of the parotid gland that split it into superficial lobe which lies superficial or lateral to the facial nerve, while the deep lobe is medial or deep to the facial nerve. The facial nerve branches within the parotid gland, and the branching can be highly variable. Usually the main trunk bifurcates in to the zygomaticotemporal branch and the cervico-facial branch at the pes anserinus, also known as the goose's foot afterwards into the buccal, zygomatic, temporal, marginal, and cervical branches.[1][8][9]

Our study included 49 patients in 2015, in which 57.15% female and 42.85% male. Moreover, benign neoplasm was more frequent than malignant with percentage of (67.34%) compared to (32.65%) respectively, in the other hand Christopher J Et.al mentioned that malignant neoplasms were more common than benign lesions in his data with percentage of 57.64% malignant to 42.35 % benign neoplasms.[10] further more data from a Pediatric parotid neoplasms retrospective study showed 65% of all tumors were malignant compared to 35% benign lesions.[11]

Three types of surgeries were done in our center, the most common type is total parotidectomy (51%) followed by superficial parotidectomy (30.64%) and the least common is the partial parotidectomy (18.36%). Moreover, 67% of all patients discharged home with no complication while 33% required extended admission for other causes. However, a study conducted Between 1987 and 1992, one surgeon performed 242 parotidectomy, the type of parotidectomy were: 114 'appropriate' resections, 77 superficial parotidectomy, 35 sub-total parotidectomy and 14 total resections. Postoperative facial nerve function was normal in about 90% of patients with localized neoplasms and 55% of all patients.[10]

A multi-centric study was conducted at three hospitals, included 20 patients who underwent parotid gland neoplasm surgery which showed Post-operative complications sensory deficit in 20%, temporary facial nerve paresis 15%, sialocele 10%, post-operative bleeding and wound infection 5% and No recurrence was seen during follow-up that ranged between 6 months and 4 years.[12]

Many studies were done to evaluate the outcome of parotidectomy worldwide, here some of the results.

name	Harney M	Henri L	Neeraj P	Ruoholho J
year	2002	1994	2006-2011	2016
N. patients	108	229	100	132
Temporary FNP	13.8%	5.6%	16%	3.9%
Permeant FNP	3.7%	0%	5%	1.6%
Frey's syndrome	-	65.9%	5%	-
hemorrhage	-	1.7%	-	-
hematoma	-	6.1%	-	-
seroma	-	4.8%	-	-

• Summary of outcome of parotidectomy [13][14][15][16]

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