International Journal of Gerontology 11 (2017) 114–117

Contents lists available at ScienceDirect

International Journal of Gerontology

journal homepage: www.ijge-online.com

Original Article

Clinical Analysis of Parotid Tumors in Patients Over 60-year-old: A Retrospective Study of 78 Cases

Dong Hoon Lee [a, b], Tae Mi Yoon [a, b], Joon Kyoo Lee [a, b *], Sang Chul Lim [a, b]

[a] Department of Otolaryngology-Head and Neck Surgery, Chonnam National University Medical School, Hwasun, South Korea, [b] Chonnam National University Hwasun Hospital, Hwasun, South Korea

ARTICLE INFO

Article history:
Received 5 November 2015
Received in revised form
28 April 2016
Accepted 8 May 2016
Available online 17 May 2017

Keywords:
elderly,
fine needle aspiration,
parotid gland,
parotid tumor,
surgical procedures

SUMMARY

Background: The aim of this study was to review the epidemiologic characteristics, management and treatment outcome of elderly parotid tumors.
Methods: From January 2010 to December 2013, Seventy-eight patients ≥60-year-old with a diagnosis of parotid tumor were identified based on their medical records.
Results: The 78 patients comprised 38 males and 40 females. Sixty-seven (85.9%) patients had a benign tumor and 11 (14.1%) patients had a malignant tumor. The most common benign tumor was Warthin tumor (n = 26) and the most common malignant tumor was salivary duct carcinoma (n = 5). Fine needle aspiration cytology had a diagnostic sensitivity of 100%, positive-predictive value of 97.0%, and accuracy of 97.3% for diagnosing benign parotid tumors.
Conclusions: Warthin tumor was the most common benign tumor, and salivary duct carcinoma was the most frequent malignant tumor in this study. Surgical treatment is the mainstay treatment for benign and malignant parotid tumors.
Copyright © 2017, Taiwan Society of Geriatric Emergency & Critical Care Medicine. Published by Elsevier Taiwan LLC. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

1. Introduction

Salivary gland tumors are uncommon, accounting for less than 3% of all tumors of the head and neck and 0.6% of all neoplasms of the body.[1–4] About 80% of all salivary gland tumors have been occurred in the parotid gland, followed by submandibular gland, sublingual gland, and minor salivary gland. Of parotid tumors, 80% are benign and the pleomorphic adenoma is the most common type, followed by Warthin tumor. Malignant tumors are comparatively rare, and among these the most common primary neoplasms are mucoepidermoid carcinomas followed by adenoid cystic carcinoma.[1–4]

However, because of the low incidence and various histopathologic types of parotid tumors, worldwide epidemiologic series show geographic variation in the relative incidence of parotid gland tumors, with discrepancies among clinical and histologic aspects.[4] In addition, in the head and neck, malignant tumors become more frequent in old age and those occurring in the parotid space increase.[5]

This study presents our 4-year experience, such as preoperative diagnosis method, surgical type, and treatment modality with 78 cases of parotid tumors occurring in elderly patients ≥60-year-old. The aim of this study was to review the epidemiologic characteristics, management and treatment outcome of elderly parotid tumors.

2. Materials and methods

After obtaining approval from the Institutional Review Board of Chonnam National University Hwasun Hospital, a retrospective review was performed to evaluate patients with a diagnosis of parotid tumor at the hospital's Department of Otolaryngology-Head and Neck Surgery from January 2010 to December 2013. Seventy-eight patients ≥60-year-old with a diagnosis of parotid tumor were identified based on their medical records. Clinicopathologic data of parotid tumors were reviewed including age, sex, symptoms, duration of symptoms, results of histopathologic tumor examination, surgical procedures and complications.

All patients had computed tomography (CT) scan performed before the operation to assess the extent of the lesion and help in planning treatment. All patients except four underwent fine-needle aspiration cytology (FNAC).

* Correspondence to: Joon Kyoo Lee, Department of Otolaryngology-Head and Neck Surgery, Chonnam National University Medical School and Hwasun Hospital, 160 Ilsimri, Hwasun, Jeonnam, 519-809, South Korea. Fax: +82 62 228 7743.
E-mail address: joonkyoo@jnu.ac.kr (J.K. Lee).

http://dx.doi.org/10.1016/j.ijge.2016.05.008
1873-9598/Copyright © 2017, Taiwan Society of Geriatric Emergency & Critical Care Medicine. Published by Elsevier Taiwan LLC. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

The type of surgery performed depended on the pre-operative diagnosis based on FNAC and radiological scans as well as the clinical presentation of the parotid tumor. Partial superficial parotidectomy was performed if a tumor located in the parotid tail. Superficial parotidectomy was performed if a tumor was located in the superficial lobe, and total parotidectomy was performed if it was in the deep lobe or in a tumor diagnosed as malignant by FNAC. Tumor enucleation was not performed. In the malignant tumors, neck dissection was performed if enlarged neck lymph nodes were found by preoperative evaluation, such as FNAC and radiologic examination. Management of malignant tumors depended on the tumor stage and histological grade. Drainage was performed and maintained by aspiration. All cases of parotid tumors were confirmed histopathologically.

The complication of postoperative facial palsy was evaluated by the House Brackmann grade. Intraoperative facial nerve monitor was usually used. Fisher's exact test was used in the statistical analysis using SPSS version 14.0. Statistical significance was defined as a p-value < 0.05.

3. Results

This group of 78 patients included 38 (48.7%) males and 40 (51.3%) females (male-to-female ratio of 1:1.1). The age of the patients ranged between 60 and 82 years with a mean of 68.0 ± 6.2 years. Most tumors (51/78, 65.4%) presented in patients 60–69-year-old. There were 22 (28.2%) patients between 70 and 79-year-old, and only 5 (6.4%) patients ≥ 80-year-old.

Most patients (61/78, 78.2%) presented with a slowly enlarging mass within the parotid gland. The remaining patients were incidentally diagnosed by radiologic examinations, such as CT (n = 4), ultrasonography (n = 5) and positron emission tomography-CT (PET-CT, n = 8). The majority of the lesions were asymptomatic. The duration of symptoms ranged from 0.3 to 360 months with a mean of 42.0 ± 91.3 months.

The most common surgical procedure instituted was superficial parotidectomy, performed in 57.7% (n = 45). Partial superficial parotidectomy and only total parotidectomy were performed in 21.8% (n = 17) and 12.8% (n = 10), respectively. Total parotidectomy with neck dissection was performed in 7.7% (n = 6) of malignant tumors. Among the 45 patients who underwent superficial parotidectomy, 43 patients had benign tumors and two had malignant tumors.

Sixty-seven of the 78 tumors (85.9%) were benign (Table 1). Twenty-six patients had a Warthin tumor, followed by pleomorphic adenoma (n = 16), basal cell adenoma (n = 13), lymphoepithelial cyst (n = 5), tuberculosis (n = 2), myoepithelioma (n = 2), schwannoma (n = 1), oncocytoma (n = 1) and ductal ectasia with mucinous metaplasia (n = 1).

Eleven cases (14.1%) were malignant (Table 1), including salivary duct carcinoma (n = 5), carcinoma ex pleomorphic adenoma (n = 2), epithelial-myoepithelial carcinoma (n = 1), Lymphoepithelial carcinoma (n = 1), mucoepidermoid carcinoma (n = 1) and polymorphous low grade adenocarcinoma (n = 1). Ten patients who had pathologically confirmed malignant tumors except one with low-grade mucoepidermoid carcinoma underwent radiation therapy.

FNAC had a diagnostic sensitivity of 100%, diagnostic specificity of 80%, positive-predictive value of 97.0%, negative-predictive value of 100% and accuracy of 97.3% for diagnosing benign parotid tumors (Table 2). No specific complications were observed after FNAC.

Fourteen patients showed postoperative complications. Five (6.4%) patients developed saliva leakage. The saliva leakage resolved by conservative treatment. Nine (11.5%) patients had facial nerve palsy. Six of these patients presented a spontaneous improvement from 1 to 6 months after surgery. Three patients had complete facial nerve palsy (House Brackmann Grade VI), because in all patients the facial nerve was deliberately sacrificed due to its involvement by the malignant tumor. Four facial disorders occurred in the partial or superficial parotidectomy group (6.5%) versus five in the total parotidectomy group (31.3%), there were a statistically significantly different for the facial nerve palsy occurrence between the two groups ($p = 0.02$).

All patients except two were alive and free of recurrent disease at the time of the last follow-up. Two patients diagnosed as salivary duct carcinoma developed lung metastasis despite postoperative radiation therapy and chemotherapy, and were died.

The mean follow period after surgery was 34.6 ± 14.1 months with the range of 13–59 months.

4. Discussion

The most common benign parotid tumor is pleomorphic adenoma, and the most common malignant tumor is mucoepidermoid carcinoma.[1–3] However, the incidence of parotid tumors may be difference according to the race and age. Pleomorphic adenoma was reported as the most common benign parotid tumor in Korea.[4] However, another study based on a Chinese population demonstrated that Warthin tumor was the most common benign parotid tumor.[6] In addition, Chan et al reported that Warthin tumor was prevalent in older patients.[7] In this study, 67 of the 78 tumors (85.9%) were benign and the most common benign tumor was Warthin tumor, which was even more common than pleomorphic adenoma. It seems that Warthin tumor is more prevalent in elderly Korean populations, but the exact reason is unknown. Genetic factor, Epstein–Barr virus, or cigarette smoking should be considered.[7–9]

Frequency of malignant parotid tumors varies. Many studies reported that the most common malignant tumor is mucoepidermoid carcinoma.[1–3] However, adenocarcinoma was reported as the most common type in Japan and Netherlands.[4,10] Lee et al reported that the most frequent malignant tumor in the parotid gland was squamous cell carcinoma.[4] In contrast to the previous reports, in this study the most common malignant tumor was salivary duct carcinoma (5/11, 45.5%). This is considered to be the

Table 1
Histopathologic type of benign and malignant parotid tumors.

Benign (N = 67)	Malignant (N = 11)
Warthin tumor (N = 26, 38.8%)	Salivary duct carcinoma (N = 5, 45.5%)
Pleomorphic adenoma (N = 16, 23.9%)	Carcinoma ex pleomorphic adenoma (N = 2, 18.2%)
Basal cell adenoma (N = 13, 19.4%)	Epithelial-myoepithelial carcinoma (N = 1, 9.1%)
Lymphoepithelial cyst (N = 5, 7.5%)	Lymphoepithelial carcinoma (N = 1, 9.1%)
Tuberculosis (N = 2, 3.0%)	Mucoepidermoid carcinoma (N = 1, 9.1%)
Myoepithelioma (N = 2, 3.0%)	Polymorphous low grade adenocarcinoma (N = 1, 9.1%)
Schwannoma (N = 1, 1.5%)	
Oncocytoma (N = 1, 1.5%)	
Ductal ectasia (N = 1, 1.5%)	

Download English Version:

https://daneshyari.com/en/article/5662718

Download Persian Version:

https://daneshyari.com/article/5662718

Daneshyari.com