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· 临床研究 ·

## 2 456例唾液腺肿瘤临床病理分析

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**【摘要】目的** 探讨唾液腺肿瘤的发病、病理类型等临床特点。**方法** 收集中山大学孙逸仙纪念医院口腔颌面外科1973年1月至2018年12月间确诊的唾液腺肿瘤病例2 456例患者的相关资料, 回顾分析其性别、年龄、病理类型、发病部位、良恶性构成比等特点。**结果** 46年间收治的唾液腺肿瘤患者2 456例, 女性比例占41.9%, 男性占58.1%, 40~60岁年龄段为发病高峰, 其中良性肿瘤1 863例(75.9%), 恶性肿瘤593例(24.1%), 良恶性之比为3.1:1。良性肿瘤构成比前2位是多形性腺瘤(58.7%)、Warthin瘤(33.6%), 恶性肿瘤构成比前2位是黏液表皮样癌(27.7%)、腺样囊性癌(26.1%)。最常见的良性肿瘤多形性腺瘤的好发部位是腮腺、腭部、颌下腺, 而恶性肿瘤中黏液表皮样癌则常见于腮腺和腭部的小唾液腺。本组资料中唾液腺肿瘤发病呈逐年递增的趋势, 近10年病例占总病例数的53.3%。**结论** 唾液腺肿瘤病人数量逐年增加; 唾液腺肿瘤的总发生率男性高于女性; 大唾液腺以良性肿瘤为主, 小唾液腺恶性肿瘤多见; 多形性腺瘤、Warthin瘤、黏液表皮样癌最常见; 40~60岁是唾液腺良、恶性肿瘤高发年龄段。

**【关键词】** 唾液腺; 肿瘤; 多形性腺瘤; Warthin瘤; 黏液表皮样癌; 腺样囊性癌; 病理学; 回顾性分析



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**Clinical and pathological analysis of 2 456 cases of salivary gland tumor** WANG Zhangsong<sup>1</sup>, XIE Shule<sup>1</sup>, ZHANG Hanqing<sup>1</sup>, FANG Zezhen<sup>1</sup>, LI Qunxing<sup>2</sup>, FAN Song<sup>1</sup>, LI Jinsong<sup>1</sup>. 1. Department of Oral & Maxillofacial Surgery, Sun Yat-sen Memorial Hospital, Sun Yat-sen University, Guangzhou 510120, China; 2. Guanghua School of Stomatology, Sun Yat-sen University, Guangzhou 510055, China

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**【Abstract】 Objective** To investigate the clinical characteristics of salivary gland tumors and their pathological types. **Methods** Data from 2 456 patients with salivary gland tumors diagnosed between January 1973 and December 2018 at Sun Yat-sen Memorial Hospital of Sun Yat-sen University were collected, and their gender, age and tumor pathological type, location, and benign and malignant composition ratios were retrospectively analyzed. **Results** Over the 46-year study period, 2 456 patients with salivary gland tumors were treated; 41.9% were female, and 58.1% were male. The peak incidence was found among the 40 to 60 years of age group, in which 593 (24.1%) patients had malignant tumors and 1 863 (75.9%) had benign tumors. The ratio of benign and malignant tumors was 3.1:1. The top two most common benign tumors were pleomorphic adenoma (58.7%) and Warthin tumors (33.6%). The top two most common malignant tumors were mucoepidermoid carcinoma (27.7%) and adenoid cystic carcinoma (26.1%). The most common sites of benign pleomorphic adenomas were the parotid glands, palate, and submandibular glands. Mucinous epidermoid carcinomas in malignant tumors were common in the parotid glands and small salivary glands. The incidence of salivary gland

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tumors in this group has increased each year, and this group accounted for 53.3% of the total cases over the past 10 years. **Conclusion** The number of patients with salivary gland tumors is increasing each year. The total incidence of salivary gland tumors is higher in men than in women. Large salivary gland tumors are mainly benign tumors, and small salivary gland tumors are more common. Polymorphic adenomas, Warthin tumors, and mucoepidermoid carcinomas are the most common tumor types; patients 40 ~ 60 years old are most likely to have benign salivary glands and have a high incidence of malignant tumors.

**【Key words】** salivary gland; tumor; pleomorphic adenoma; Warthin tumor; mucoepidermoid carcinoma; adenoid cystic carcinoma; pathologic; retrospective analysis

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唾液腺肿瘤是口腔颌面部常见的肿瘤之一,也是口腔颌面部特有的肿瘤,占头颈部肿瘤的3%~10%<sup>[1]</sup>。唾液腺肿瘤最常见于腮腺<sup>[2]</sup>,其次为颌下腺与小唾液腺,病理类型复杂,其中绝大多数是上皮性肿瘤,而间叶组织来源的肿瘤较少见。唾液腺肿瘤的治疗以手术方式为主,根据肿瘤的临床表现及病理类型采用不同的手术方式。对唾液腺肿瘤的临床病理学特点进行研究,有利于提高对唾液腺疾病的认识与治疗方案的制定,对临床工作有重要的指导意义。本研究对中山大学孙逸仙纪念医院口腔颌面外科1973~2018年住院病人的病历资料进行回顾分析,旨在探讨唾液腺肿瘤的患病趋势、病理类型、部位、良恶性构成比等临床病理特点,从而为唾液腺肿瘤的诊断和治疗提供参考。

## 1 资料和方法

### 1.1 研究对象

收集中山大学孙逸仙纪念医院口腔颌面外科1973年1月~2018年12月2 456例的唾液腺肿瘤住院患者的临床资料,按WHO“头颈部肿瘤病理

和遗传学”(2017)唾液腺肿瘤分类<sup>[3]</sup>标准、病理学类型将临床资料分类、筛选和统计,对唾液腺肿瘤患者的临床资料进行分析,如年龄、性别、肿瘤构成比、发病部位、病理类型等。

### 1.2 统计学分析

应用SPSS 25.0统计软件对结果数据进行统计学分析,对肿瘤发病部位、年龄、性别方面进行 $\chi^2$ 检验,检验水准为双侧 $\alpha = 0.05$ 。

## 2 结果

### 2.1 2 456例唾液腺肿瘤病人总体情况

1973年至2018年期间收治的唾液腺肿瘤患者2 456例,女性比例占41.9%,男性占58.1%,其中良性肿瘤1 863例(75.9%),恶性肿瘤593例(24.1%),良恶性之比为3.1:1。

### 2.2 2 456例唾液腺肿瘤不同时段分布情况

唾液腺肿瘤不同时段分布情况见表1。本组资料中唾液腺肿瘤发病呈逐年递增的趋势,近10年病例占总病例数的53.3%,表中良恶性肿瘤构成比呈现出下降趋势。

表1 2 456例唾液腺肿瘤不同时段分布情况

Table 1 Distribution of 2 456 salivary gland tumors in different time periods

Time	Benign (Male/Female)	Malignant (Male/Female)	Benign/Malignant	Total
1973 ~ 1978	108 (63/45)	32 (23/9)	3.3	140
1979 ~ 1988	211 (92/119)	55 (24/31)	3.8	266
1989 ~ 1998	245 (151/94)	70 (34/36)	3.5	315
1999 ~ 2008	328 (198/130)	99 (60/39)	3.3	427
2009 ~ 2018	971 (602/369)	337 (179/158)	2.9	1 308
Total	1 863 (1106/757)	593 (320/273)	3.1	2 456

2.3 2 456例唾液腺肿瘤病人性别年龄分布情况  
唾液腺肿瘤患者中位年龄为49岁,恶性肿瘤

中男性患者与女性患者之比是1.2:1;良性肿瘤中男性患者与女性患者之比是1.5:1;良恶性肿瘤的

总发生率不同性别间差异有统计学意义 ( $\chi^2 = 5.394, P = 0.02$ ); 40 ~ 60岁为唾液腺恶性肿瘤发病高峰年龄段(50.1%)。

#### 2.4 2 456例唾液腺肿瘤发病部位分布情况

唾液腺肿瘤发病部位分布情况见表2。2 456例唾液腺肿瘤中大唾液腺肿瘤有2 247例

(91.5%),小唾液腺肿瘤有209例(8.5%);大唾液腺以良性肿瘤为主,小唾液腺恶性肿瘤多见( $\chi^2 = 330.206, P < 0.001$ );唾液腺肿瘤的发生部位以腮腺最多,约占76.6%,其次为颌下腺(12.6%)、腭部小唾液腺(7.0%)。

表2 2 456例唾液腺肿瘤发病部位构成比

Table 2 Location distribution of 2 456 cases of salivary gland tumors n(%)

Location	Benign	Malignant	Total	Benign/Malignant
Parotid gland	1 577(64.2%)	304(12.4%)	1 881(76.6%)	5.19
Submandibular gland	231(9.4%)	79(3.2%)	310(12.6%)	2.92
Sublingual gland	4(0.2%)	52(2.1%)	56(2.3%)	0.08
Palate	42(1.7%)	131(5.3%)	173(7.0%)	0.32
Buccal	3(0.1%)	8(0.3%)	11(0.4%)	0.38
Lip	6(0.2%)	8(0.3%)	14(0.6%)	0.75
other (floor of the mouth, tongue)	0(0%)	11(0.4%)	11(0.4%)	0

#### 2.5 2 456例唾液腺肿瘤的病理类型及发病部位

1 863例良性肿瘤中,多形性腺瘤1 093例,占58.7%,其次为Warthin瘤,626例,占33.6%(表3)。恶性肿瘤中,居首位的是黏液表皮样癌,164例,占

27.7%,其次是腺样囊性癌,155例,占26.1%(表4)。最常见的良性肿瘤多形性腺瘤的好发部位是腮腺、颌下腺、腭部,而恶性肿瘤的黏液表皮样癌则常见于腮腺和腭部的小唾液腺。

表3 唾液腺良性肿瘤病理类型与肿瘤部位分布表

Table 3 Pathological classification and location of benign salivary gland tumors n(%)

Pathological type	Parotid gland	Submandibular gland	Sublingual gland	Palate	Buccal	Lip	Other (floor of the mouth, tongue)	Total
Pleomorphic adenoma	815	223	4	42	3	6	0	1 093(58.7%)
Warthin tumor	623	3	0	0	0	0	0	626(33.6%)
Basal cell adenoma	89	3	0	0	0	0	0	92(4.9%)
Myoepithelial neoplasia	7	0	0	0	0	0	0	7(0.4%)
Eosinophilic tumor	16	0	0	0	0	0	0	16(0.9%)
Lymphoma	2	1	0	0	0	0	0	3(0.2%)
Cystadenoma	17	1	0	0	0	0	0	18(1.0%)
Papillary salivary adenoma	1	0	0	0	0	0	0	1(0.1%)
Ductal papilloma	1	0	0	0	0	0	0	1(0.1%)
Steatadenoma	1	0	0	0	0	0	0	1(0.1%)
Parotid gland tumor	5	0	0	0	0	0	0	5(0.3%)
Total	1 577	231	4	42	3	6	0	1 863(100%)

### 3 讨论

唾液腺肿瘤是口腔颌面部的第二大类肿瘤,不同国家发病情况不同。国内迄今尚缺乏相关完善的流行病学报道,本文为研究我国不同地区唾液腺肿瘤流行病学特点提供参考数据。

本研究中唾液腺肿瘤发病呈逐年递增的趋势,这可能与近年来环境中污染和辐射以及不良生活习惯有关<sup>[4]</sup>;近10年病例占总数的53.3%,恶性肿瘤构成比呈递增趋势,这可能是由于影像学

检查<sup>[5]</sup>、细针吸取活检技术和冰冻切片技术的应用<sup>[6-8]</sup>使更多的恶性肿瘤患者更易被发现,这也与近年来社会和经济的发展使人们更加关注健康有关。

国外有文献报道唾液腺肿瘤从新生儿到老年均均可发生<sup>[9-11]</sup>,本文唾液腺肿瘤患者年龄分布为0.2 ~ 96岁。本研究结果显示唾液腺良性肿瘤与恶性肿瘤有较为相近的高发年龄段40 ~ 60岁。

本文结果显示,良性肿瘤构成比占首位的为

表4 唾液腺恶性肿瘤病理类型与肿瘤部位分布表  
Table 4 Pathological classifications and locations of malignant salivary gland tumors n (%)

Pathological type	Parotid gland	Submandibular gland	Sublingual gland	Palate	Buccal	Lip	Other (floor of the mouth, tongue)	Total
Mucoepidermoid carcinoma	73	15	8	60	2	3	3	164 (27.7%)
Adenoid cystic carcinoma	39	25	33	47	3	2	6	155 (26.1%)
Acinar cell carcinoma	37	2	1	1	0	0	0	41 (6.9%)
Pleomorphic adenocarcinoma	9	2	1	2	1	0	0	15 (2.5%)
Clear cell carcinoma	0	0	1	1	0	0	0	2 (0.3%)
Basal cell adenocarcinoma	4	1	0	2	0	0	1	8 (1.3%)
Intraductal carcinoma	4	2	1	1	0	0	0	8 (1.3%)
Adenocarcinoma, NOS	12	3	1	3	1	1	0	21 (3.5%)
Parotid ductal carcinoma	33	6	1	2	0	1	0	43 (7.3%)
Myoepithelial carcinoma	5	2	0	1	0	0	0	8 (1.3%)
Epithelial-muscle epithelial carcinoma	2	0	0	2	0	0	0	4 (0.7%)
Cancer in pleomorphic adenoma	21	6	1	1	1	1	0	31 (5.2%)
Secretory carcinoma	6	0	0	1	0	0	0	7 (1.2%)
Sebaceous gland carcinoma	2	0	0	0	0	0	0	2 (0.3%)
Undifferentiated carcinoma	9	1	1	2	0	0	0	13 (2.1%)
Large cell neuroendocrine carcinoma	1	0	0	0	0	0	0	1 (0.2%)
Small cell neuroendocrine carcinoma	0	1	0	1	0	0	0	2 (0.3%)
Lymphoid epithelial carcinoma	13	6	2	4	0	0	1	26 (4.4%)
Squamous cell carcinoma	31	6	1	0	0	0	0	38 (6.4%)
Eosinophilic carcinoma	2	1	0	0	0	0	0	3 (0.5%)
Carcinosarcoma	1	0	0	0	0	0	0	1 (0.2%)
Total	304	79	52	131	8	8	11	593 (100%)

多形性腺瘤,其次为 Warthin 瘤;恶性肿瘤构成比占首位的为黏液表皮样癌,其次为腺样囊性癌。毛广文等<sup>[12]</sup>发现最常见的恶性肿瘤是腺样囊性癌,这可能与地域、环境气候、人的生活习惯不同有关。本研究资料中唾液腺肿瘤发生部位最多的是腮腺(76.5%),其次是颌下腺、腭部的小唾液腺、舌下腺及其他部位的小唾液腺。从解剖结构来看,腮腺的体积大且结构复杂,表面与众多小淋巴结相邻,恶性肿瘤的转移风险较高。良性肿瘤中多形性腺瘤(58.7%)占绝对多数,它好发于腮腺、颌下腺、腭部,Warthin 瘤(33.6%)和基底细胞腺瘤(4.9%)分别占2、3位,均发生于腮腺和颌下腺。恶性肿瘤最常见的前3位依次为黏液表皮样癌、腺样囊性癌和涎腺导管癌,常见于腮腺和腭部的小唾液腺。小唾液腺中最常见的是黏液表皮样癌、腺样囊性癌<sup>[13]</sup>。腭部的小唾液腺主要分布在硬腭的腺区、软腭及腭垂,吸烟酗酒等不良习惯以及不良的饮食习惯可能是诱发腭腺肿瘤的重要因素。有文献报道唾液腺细针穿刺细胞学检查对恶性结果的敏感性为89%,特异性为97%<sup>[14]</sup>。唾液腺细针穿刺细胞学检查在鉴别非肿瘤病变和肿瘤病变

方面至关重要,结合核磁共振检查可明显提高诊断的准确性<sup>[15-16]</sup>。近年来细胞分子检测技术已应用于唾液腺肿瘤的临床诊疗<sup>[17]</sup>。有研究表明CRTC1-MAML2融合基因是由t(11;19)(q21;p13)易位产生的,现已知是低分化和高分化粘液表皮样癌的一个特征,与生存率有关<sup>[18]</sup>。在大多数腺样囊性癌中已经鉴定出导致MYB-NFIB基因融合的t(6;9)(q22-23;p23-34)易位<sup>[19]</sup>。有文献报道恶性唾液腺肿瘤患者肿瘤细胞中PD-L1阳性与不良预后相关<sup>[20]</sup>。分子检测技术扩大了对唾液腺肿瘤病理的理解,并有助于确定可能改善其中一些肿瘤治疗的潜在靶点<sup>[21]</sup>。随着新的靶向治疗的出现,将适当的分子检测纳入唾液腺癌的病理评估变得越来越重要<sup>[22]</sup>。

本研究中唾液腺肿瘤发生率在性别、年龄、病理类型、好发部位、良恶性构成比与国内多地区结果相符,但在个别类型的唾液腺肿瘤表现出区域差异性。本研究缺少恶性唾液腺肿瘤患者的TNM分期和随访资料,因而无法根据肿瘤病理类型及TNM分期分析恶性唾液腺肿瘤患者的预后情况。

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