

SALIVARY GLAND NEOPLASMS: ANALYSIS OF 89 CASES FROM BASRAH

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ABSTRACT

During 17 years period (1984-2000) eighty-nine cases of tumours of the salivary glands (SG) were diagnosed from Basrah population at the histopathology laboratory of Al-Sader Teaching Hospital, and from Al-Wiswasy private laboratory. The diagnosis of individual tumours was based on the World Health Organization (WHO) classification. The tumours were analyzed considering histopathological type, sex, age and site. Of these 89 tumours, (71%) were classified as benign and (29%) malignant. Pleomorphic adenomas (PA) constituted the most common histopathological type of the benign tumours (66%), whereas adenoid cystic carcinoma (ACC) was the most common malignant tumours (9%). There was a male predominance (for both benign and malignant cases), with a male to female ratio of 1.4: 1. The mean age for benign tumours was 39.79 years and for malignant tumour was 43.61 years. The parotid gland was the commonest site of occurrence with a relative frequency of (54%) and (62%) for benign and malignant cases respectively. Our results were compared with Iraqi and other studies.

INTRODUCTION

Tumours located in the salivary glands (SG) (parotid, sub/mandibular, sublingual and minor salivary glands), form the most heterogenous group in all human oncological pathology. They show various epidemiological, clinical and evolutionary characteristics which separate them from other neoplasms of the head and neck.^[1] They are an interesting and complex array of microscopic varieties that sometimes behave unpredictably despite an otherwise relatively benign appearance.^[2] Salivary gland tumors are relatively uncommon and represent less than 2% of tumors in humans.^[3] In Iraq according to Iraqi cancer registry (ICR) (1997), SG tumors comprise only 0.4% of the total malignant cases and 4% of all head and neck tumours.^[4] The aim of this study was to determine the relative frequency and the main histopathological types of SC neoplastic lesions in Basrah in the period (1984-2000). We compare our results with data published in the literature from Iraq and other countries.

MATERIALS AND METHODS

Histopathological records of patients with SG tumours diagnosed in Basrah Al-Sader Teaching Hospital and in Al-Wiswasy private laboratory from 1984-2000 were reviewed. The data were analyzed according to sex, age of patients, histopathological type and site of the tumours. The tumours were typed according to the WHO system.^[5]

RESULTS

The results were summarized in Tables (1-6). There were a total of 89 cases of SG tumours, of these 63 cases (71%) were benign and 26 cases (29%) were malignant tumours. The most common benign tumour was pleomorphic adenoma, 59 cases (66%) and the most common malignant tumour was adenoid cystic carcinoma, 8 cases (9%). The sex and age distribution of the neoplastic lesions were demonstrated in Table (3,4). There were a male predominance in both benign 1.25:1 (35M/28F) and malignant tumours 1.9:1 (17M/9F). The parotid gland was the commonest site of involvement in both benign (54%) and malignant tumours (62%), Table (5,6).

Table 1. The relative frequency of benign salivary gland tumours.

Histopathological type	No.	% from the total benign cases	% from the total cases
Pleomorphic adenoma	59	94	66
Adenolymphoma	4	6	5
Total	63	100%	71%

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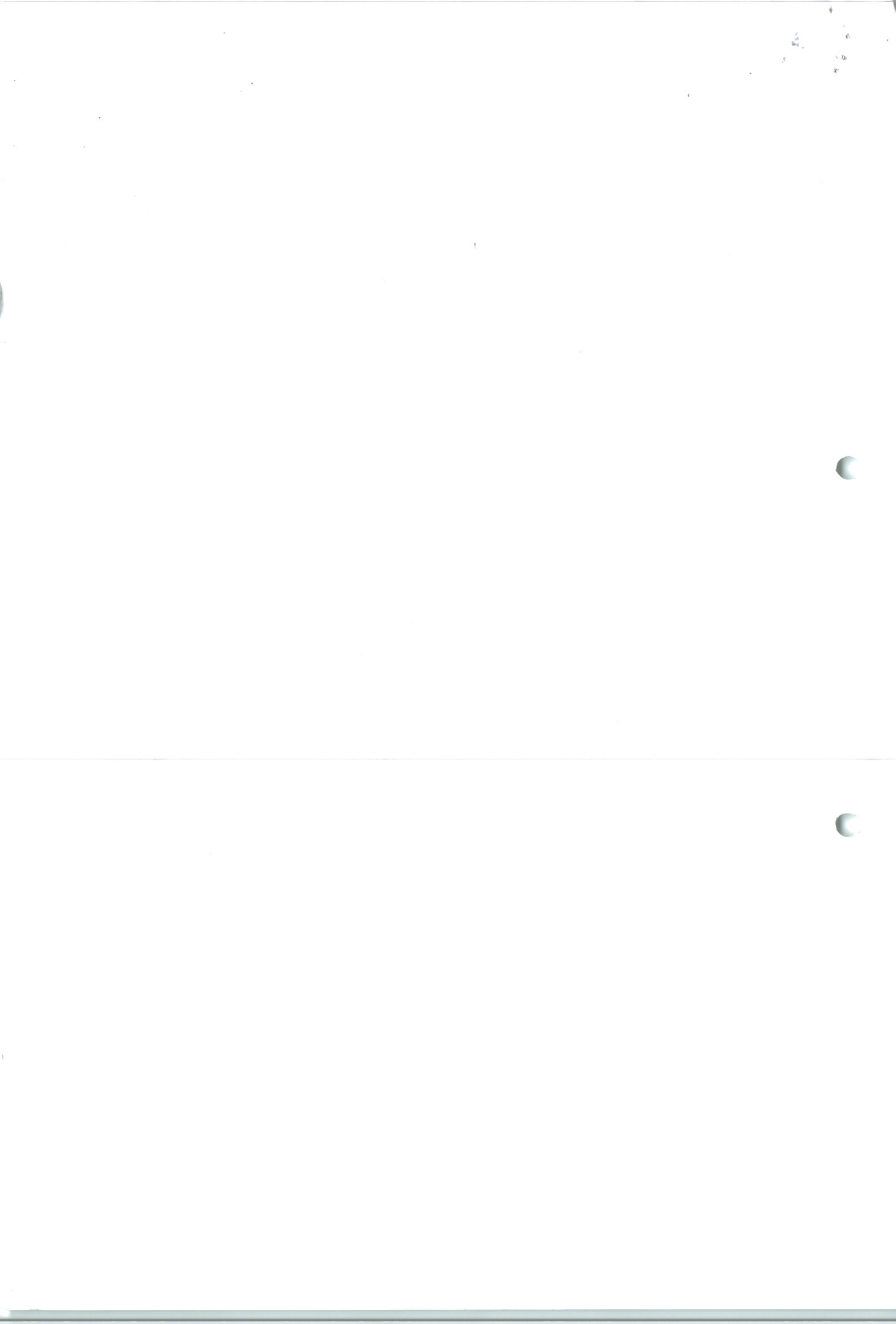


Table 2. The relative frequency of malignant salivary gland tumours.

Histopathological type	No.	% from the total malignant cases (26)	% from the total cases
Adenoid cystic carcinoma	8	31	9
Adenocarcinoma	7	27	8
Acinic cell tumour	4	15	5
Lymphocytic lymphoma	3	11	3
Mucoepidermoid carcinoma	2	8	2
Squamous cell carcinoma	1	4	1
Undifferentiated malignant tumour	1	4	1
Total	26	100%	29%

Table 3. The number, sex, sex ratio and mean age of benign salivary gland tumours.

Histopathological type	No.	M	F	M:F ratio	Mean age (year)
Pleomorphic adenoma	59	31	28	1.1:1	38.62
Adenolymphoma	4	4	0	4:0	57
Total	63	35	28	1.25:1	39.79
%		56%	44%		

Table 4. The number, sex, sex ratio and mean age of malignant salivary gland tumours.

Histopathological type	No.	M	F	M:F ratio	Mean age
Adenoid cystic carcinoma	8	5	3	1.6:1	51.75
Adenocarcinoma	7	4	3	1.3:1	46.14
Acinic cell tumour	4	2	2	1:1	41
Lymphocytic lymphoma	3	3	0	3:0	24.6
Mucoepidermoid carcinoma	2	1	1	1:1	24.5
Squamous cell carcinoma	1	1	0	1:0	-
Undifferentiated malignant tumour	1	1	0	1:0	-
Total	26	17	9	1.9:1	43.61
%	-	65%	35%	-	-

Table 5. Site distribution of benign salivary gland tumour.

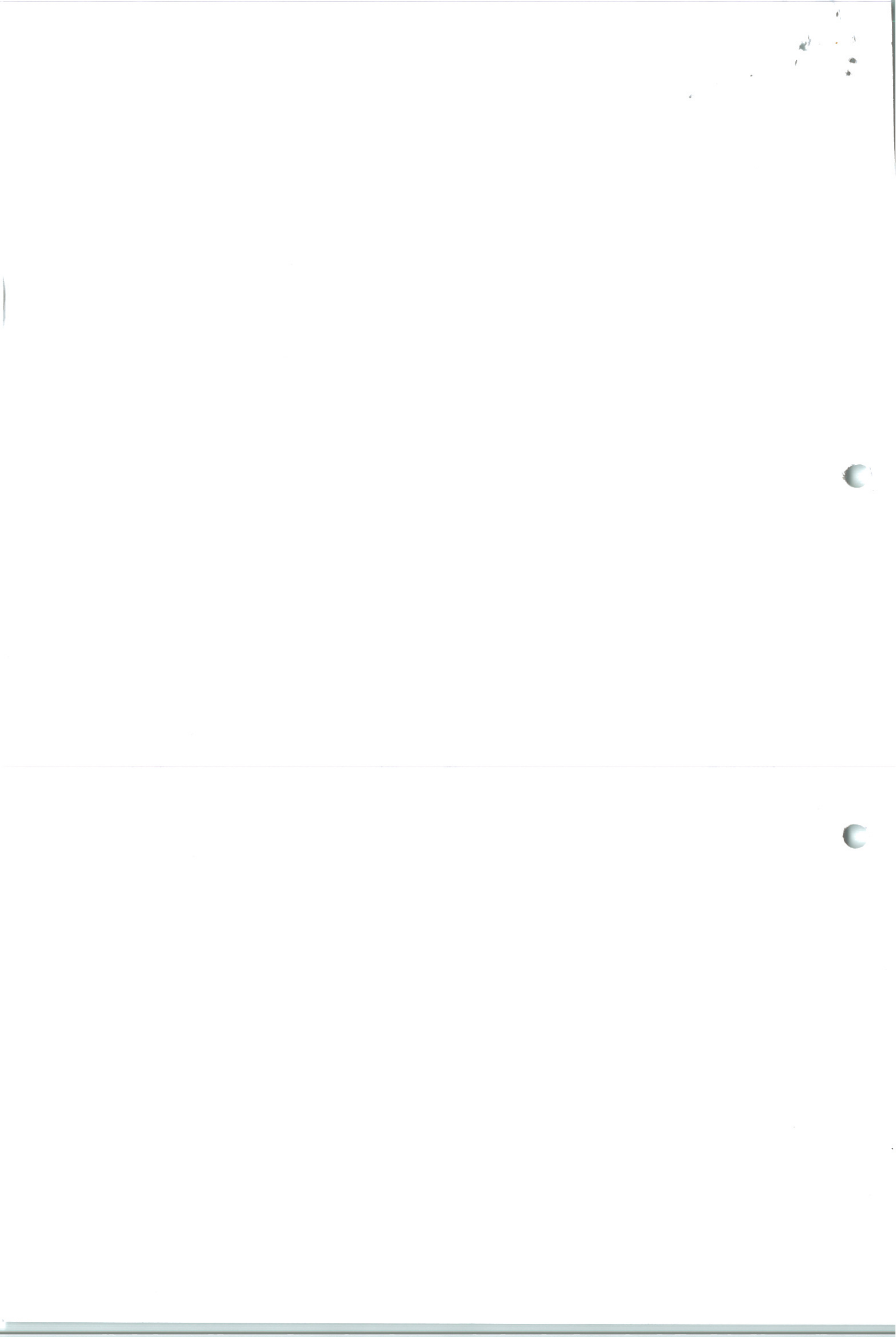
Type of tumour	No.	Parotid gland	Submandibular gland	Minor gland
Pleomorphic adenoma	59	31	16	12
Adenolymphoma	4	3	1	-
Total	63	34	17	12
%		54%	27%	19%

Table 6. Site distribution of malignant salivary gland tumour.

Type of tumour	No.	Parotid gland	Submandibular gland	Minor gland
Adenoid cystic carcinoma	8	3	2	3
Adenocarcinoma	7	4	3	-
Acinic cell tumour	4	4	-	-
Lymphocytic lymphoma	3	3	-	-
Mucoepidermoid carcinoma	2	1	-	1
Squamous cell carcinoma	1	-	1	-
Undifferentiated malignant tumour	1	1	-	-
Total	26	16	6	4
%		62%	23%	15%

DISCUSSION

Tumours of SG are uncommon and their epidemiology has not been well described.^[6] In this study benign SG tumours formed (71%) and the malignant (29%). In Baghdad (1987)^[7] and in Mosul (2002)^[8], the relative frequency for malignant tumours was 27.6% (62 cases out of 225 cases) and 17.6% (19 cases out of 108 cases) respectively. Pleomorphic adenoma formed the larger group of neoplastic tumours in most sites (66%). This result is comparable with those of other studies in Iraq and other countries, which is shown in (Table-7). The most common malignant tumour (ACC) in this study was adenoid cystic carcinoma forming 9% of the total SG tumours. A similar figure of 8.4% was reported in Mosul.^[8] In the present study only 2 cases of mucoepidermoid carcinoma (2%) were reported, similarly reported in Mosul^[8] (5.5%), while in Baghdad (1987) mucoepidermoid carcinoma was the commonest malignant



tumours forming (16%) of the total cases, and these results was in agreement with other studies.^[6,9,10] Male predominance was observed in both benign and malignant tumours with M:F ratio of 1:25:1 and 1.9:1 respectively. In Baghdad (1987)^[7] M:F ratio was 1:1 for benign tumours and 2:1 for malignant tumours, and in Mosul (2002)^[8] M:F ratio was 1.7:1 for both benign and malignant tumours. Similar results has been obtained by other studies.^[1,11,12] In this study, the patients age ranges from (4-80) years with a mean age of 41 years. The average age of patients for benign and malignant tumours was 39.7 years and 43.6 years respectively. In comparison, in Mosul study^[8] the average age was 40 years for benign tumours and 53 years for malignant tumours. Similar study^[13] reported that malignant tumours were more common in elderly than in young patients.^[13] The parotid gland was the commonest site of involvement by tumour cases (56.2%). Similar finding was reported in Baghdad (1987)^[7] (62.2%) and in Mosul (2002)^[8] (72.2%). This was in agreement with other studies.^[12,14]

Table 7. The percentage of salivary gland pleomorphic adenoma in different countries^[8].

Country	%
Present study Basrah Iraq (2003)	66
Mosul Iraq (2002)	71.2
Mosul Iraq (1990)	43.5
Baghdad study (1987)	54.2
Zimbabwe	73
South Africa	63
Nigeria	59.5
Chicago (USA)	52.8
U.K.	68
Sweden	59.5
Canada	71
Malawi	74.9

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