IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 22, Issue 9 Ser.6 (September. 2023), PP 30-34
www.iosrjournals.org

Treatment Of Patient's With Adenocarcinoma Of Salivary Glands In Zleten, Libya

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Abstract:
Salivary gland adenocarcinoma not otherwise specified (NOS) is a malignant epithelial tumor composed of ductal/glandular structures with or without cystic formation. Histologically it is classified as high grade with relevant biological behavior. Although both minor and major glands may be involved, the majority (60%) implicate the parotid gland. Location, regional lymph node status, and histological grade are some of the factors that predict the progress of the disease and the development of metastases. Long follow-up is considered the standard option as distant metastases (DM) may occur despite regional control. Primary sites of DM, besides lymph nodes, include bone, lung, and liver. Aim of to summarize the optimal management approaches and to develop recommendations for managing this lesion, for these rare cancers, there is also a need for a determined, coordinated effort to conduct high-quality clinical trials. Herein we report a unique case of a 68-year-old female with a previous history of high-grade adenocarcinoma NOS of her right parotid gland. On her biannual follow-up examination, MRI revealed an abnormal increase in the size of a known uterine leiomyoma of the posterior uterine wall. Positron emission tomography-CT (PET-CT) showed increased uptake in the uterus and lungs. A retrospective study was performed on treatment of patients with adenocsrcinoma of salivary glands the maxillo-facial surgery, Zliten Teaching Hospital, Zliten Libya, during August 2020 - May 2021. A total of 25 cases were collected: 22 cases of parotid, submandibular 2 cases and Lip 1 cases. The highest percentage value 88% of the parotid.

Keywords: *Adenocarcinoma, Distant Metastases, Lymph nodes, Uterine leiomyoma, Posterior uterine, Libya.*

Date of Submission: 14-09-2023 Date of acceptance: 24-09-2023

I. INTRODUCTION:

Salivary gland cancers (SGCs) are relatively rare, accounting for1-6% of all neoplasms of the head and neck, and are diverse with respect to origin and pathology [(1)]. They are classified according to the 2005 World Health Organization, which lists 24 different histologic subtypes [(2)]. The most common histopathologic types are as follows: mucoepidermoid carcinoma (MEC), adenoid cystic carcinoma (ACC), adenocarcinoma not otherwise specified and salivary duct carcinoma [(3)]. In general, they are typically divided into those arising from the major salivary glands and those arising from the minor salivary glands. Parotid gland is the most common site of major SGCs, followed by submandibular glands and sublingual glands [(4)]. Also, minor salivary glands are the source of SGCs, representing for 9-23% of all salivary gland tumors [(5)]. Oral cavity is the most common site of minor SGCs, and hard palate is the most frequent subsite, as demonstrated in the previous studies [(6)]. In contrast to major salivary gland tumors are almost benign, up to 80% of tumors arising from the minor salivary glands are malignant [(7)]. Primary carcinomas originating from major salivary glands can be staged according to the 7th edition of the Union for International Cancer Control (UICC), whereas the stage of minor SGCs is mainly according to the primary site of the lesions [(8)].

Complete surgical resection, with adequate free margins, is currently the mainstay treatment for SGCs. Elective treatment of the N0 neck remains a controversial topic. Postoperative radiotherapy (PORT) can be used as an adjuvant therapy in patients with high-risk factors [(9)]. And little is known about the efficacy of chemotherapy for advanced SGCs due to the rarity of the disease. It's still a great challenge to select effective therapeutic pathways for patients with recurrent tumors and those with unresectable or metastatic cancer [(10)].

In addition, very few clinical trials were designed to investigate the efficacy of novel treatment strategies [(11)]. In the present review, the topics covered include surgery and radiotherapy, selective neck dissection, chemotherapy, and targeted therapy, which aimed to summarize the optimal management approaches and therapeutic outcomes of these diseases and develop recommendations for management of malignancies in salivary gland [(12)].

II. METHODOLOGY:

Study Place:

This retrospective study was conducted in Department of Maxillo-Facial Surgery, Zliten Teaching Hospital, Zliten, Libya.

Study Period:

The study period conducted from August 2020 to May 2021.

Sampling Procedure:

Patients were treated in accordance with the United States package inserts without systemic chemotherapy. Those with HER2 amplification, overexpression, and/or mutation received pertuzumab [840 mg intravenous infusion (i.v.) loading dose, followed by 420 mg i.v. every 3 weeks (q3w)] plus trastuzumab (8 mg/kg i.v. loading dose, followed by 6 mg/kg i.v. q3w). Patients with a Hedgehog pathway alteration (*PTCH-1* or *SMO* mutation) were administered vismodegib (150 mg orally once daily in 28-day cycles). Patients with *BRAF* V600 mutations received vemurafenib (960 mg orally twice daily in 28-day cycles). Finally, patients with high TMB received atezolizumab (1200 mg i.v. q3w). Tumor burden was investigator-evaluated. Treatments were administered until disease progression, unacceptable toxicity, or other discontinuation criteria were met. Details regarding tumor assessments and molecular profiling methodology are available in the supplementary Methods, available at Annals of Oncology online.

Statistical Analysis:

Analyses were performed according to the intention-to-treat principle. A true overall response rate of at least 50% was hypothesized, and we estimated that a sample of 55 patients would provide the study with 80% power to establish a lower boundary of 30% for a two-sided 95% exact binomial confidence interval. Ruling out a lower limit of 30% for the overall response rate was considered to be clinically meaningful and consistent with approved targeted therapies for genomically defined populations of patients who had stopped having a response to previous therapies. Confidence intervals were calculated with the use of the Clopper–Pearson method. Patients who underwent surgical resection and had no viable tumor cells and negative margins (i.e., had a pathological complete response), as well as having no remaining radiographic evidence of disease, were considered to have had a complete response, consistent with RECIST, version 1.1. Duration of response and progression-free survival were estimated by the Kaplan–Meier method according to the investigators' assessments of response.

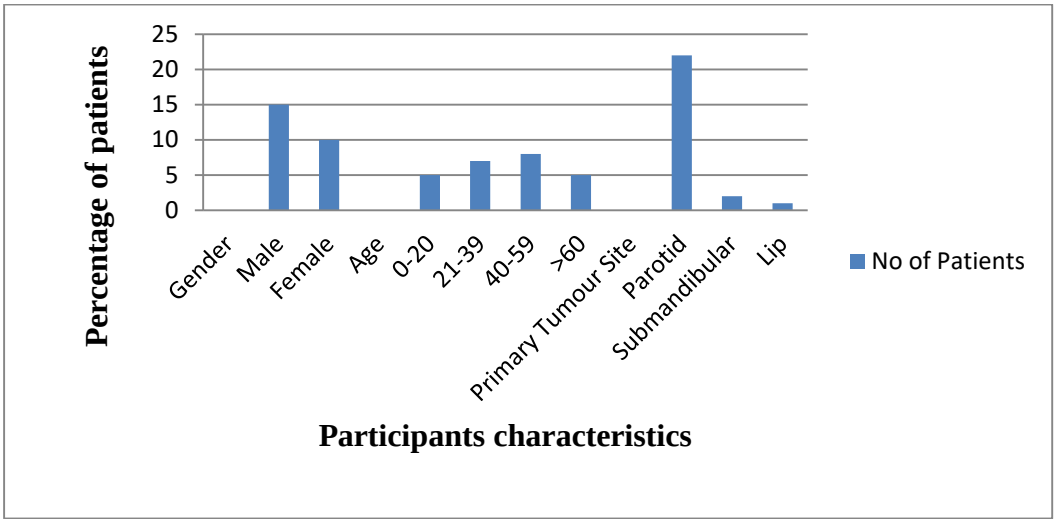
III. RESULTS AND DISCUSSION:

Our study's findings lend further support to the notion that the application of molecular techniques to cytologic material to detect theCRTC1/MAML2fusion transcript and/or protein may be helpful in cases of uncertainty (although clinical studies are required to validate such an approach) [13, 15]. Although early studies reported that the fusion transcript was restrictedto low- and intermediate-gradeMEC,thepresent study and others, have detected the translocation in high-grade MEC, albeit at rates lower than in low- and intermediate-grade MEC [14]. Nevertheless, the finding that high-grade MEC also expresses the fusion transcript suggests that the detection of the transcriptmaybe helpful in distinguishingMECfrompoorly differentiatedadenocarcinomaor clear cell carcinomaswhenconventional histologic distinction is difficult [16, 17].

Table1: Summary of clinicopathologic features including patient demographics, tumor characteristics

Characteristics	No of patients (n=25)	Mean	P – Value
Gender			
Male	15	60	
Female	10	40	
Age			
0-20	5	20	
21-39	7	28	**0.0421**
40-59	8	32	
>60	5	20	
Primary tumor site			
Parotid	22	88	
Submandibular	2	8	
Lip	1	4	

(% calculated from 25 patients)



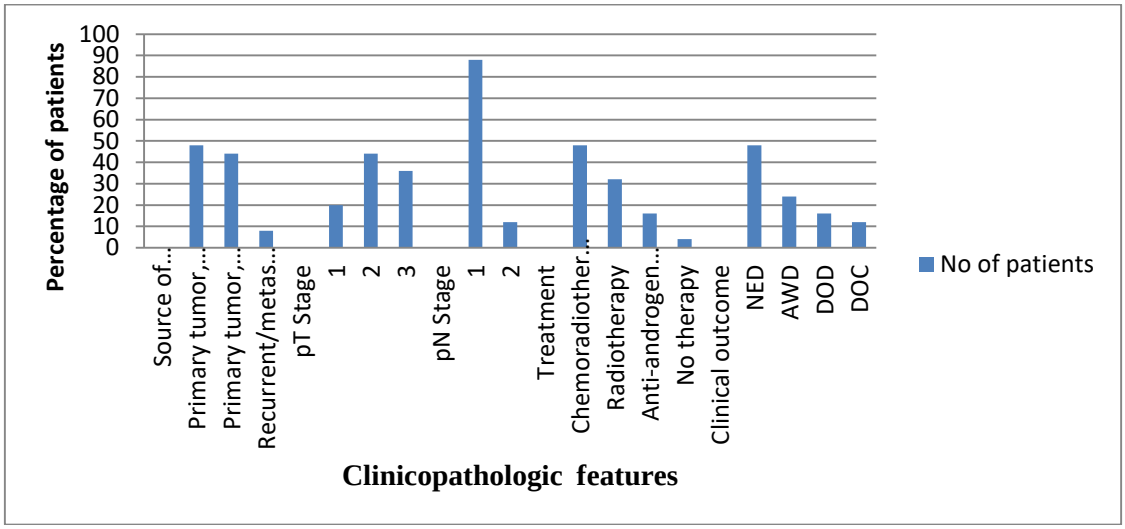
Graph1: patient demographics, tumor characteristics

Table 1.The Clinicopathologic features including patients demorgraphics of gender, age, primary tumor site of mean and p-value findout. The male mean value of 60% and the female mean value of 40%, tumor characteristics of primary tumor site also find in parotid,submandibular, Lip mean value of 88%,8%,and 4%. The parotid mean value it's very high.

Table 2: clinicopathologic features of patient demographics, treatment, and clinical outcome.

Clinicopathologic features	**No of patients (n=25)**	**Mean**	**P – Value**
Source of neoplastic tissue			
Primary tumor, de novo SDC	12	48	
Primary tumor, SDC ex pleomorphic adenoma	11	44	
Recurrent/metastatic SDC	2	8	
PT stage			
1	5	20	
2	11	44	
3	9	36	
PN Stage			
1	22	88	
2	3	12	
3	0	0	
Treatment			
Chemoradiotherapy (CRT)	12	48	0.09113
Radiotherapy	8	32	
Anti-androgen therapy	4	16	
No therapy (surveillance)	1	4	
Clinical outcome			
NED	12	48	
AWD	6	24	
DOD	4	16	
DOC	3	12	

(% calculated from 25 patients)



Graph2. Clinicopathologic features of patient demographics, treatment, and clinical outcome.

Table 2 Adenocsrcinoma of salivary glands were compared in clinicopathologic features of patient demographics, treatment, and clinical outcome. The Source of neoplastic tissue following the 3 levels is Primary tumor, de novo SDC, Primary tumor, SDC ex pleomorphic adenoma, Recurrent/metastatic SDC. The primary tumor is the 48%, and the pT stage of 3 levels the highest level is 2. The pN stage calculated by various fields in the high value of 1st in 88%, finally the treatment and the clinical outcome based on the highest mean value of CRT and NED will be same of 48%.

IV. CONCLUSION:

Salivary gland malignancies as a heterogeneous group have a relatively low of incidence, but a variety of histological types. And their rarity limits study size and the ability to perform phase III trials. The current therapies available for the management of patients with SGCs is complete surgical resection, which is the mainstay treatment for these lesions. At the same time, therapeutic ND should be recommended to those who has clinical or radiologic evidence of cervical node metastasis. While, therapeutic ND could be bring benefit to patients with advanced T stage or high-grade tumors in clinical N0 neck, especially for MEC and adenocarcinoma. For patients with inoperable disease, those who refuse surgery or those who have an unresectable tumor, primary RT should be considered. And PORT was recommended in patients presenting with adverse prognostic factors, such as T3-4 tumors, close or incomplete resection margins, high grade, perineural or vascular invasion, and positive lymph nodes.

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