

CASE REPORT

Metastatic acinic cell carcinoma of the parotid gland to the abdominal wall

Alexandros Poutoglidis^{1,*}, Ioannis Pateras², Vasiliki Kokkinou³,
and Petros Tziolas⁴

¹Department of Otorhinolaryngology, General Hospital of Kozani, Kozani, Greece, ²Department of surgery, General Hospital of Kozani, Kozani, Greece, ³Faculty of Medicine University of Thessaly, Larisa, Greece, and ⁴Faculty of Medicine University of Sofia, Sofia, Bulgaria

*Correspondence address. Department of Otorhinolaryngology, General Hospital of Kozani, 1 Mamatsiou, 50100 Kozani, Greece. Tel: +00306988929526; E-mail: xilouris21@gmail.com

Abstract

Acinic cell carcinoma (ACC) is a low-grade malignant salivary neoplasm. The parotid gland is the predominant site of origin. ACC has a tendency to recur and metastasize, rarely enough to soft tissue as well as other sites. Medical records of a 56-year-old male with a known history of acinic cell carcinoma of the left parotid gland were reviewed. This report aims to highlight the need for early clinical suspicion of the metastatic tendency of parotid gland ACC in patients' soft tissues, and the vigorous oncologic approach to any suspected metastatic deposits, as this is the standard of practice and only treatment.

INTRODUCTION

Acinic cell carcinoma (ACC) of the salivary gland represents 2.5–5% of all parotid gland neoplasms [1]. Histological grade predicts survival rate more accurate than T and N classifications [2]. Distant metastasis occurs in 12% in ACC patients [3]. Reported metastatic sites include intracranial, lungs, bones, cavernous sinus, spine, sternum, orbit, liver and rarely skin [3–5]. Patients, with localized disease have 5-, 10- and 20-year survival rates of 100%, 99.15% and 94.37%, respectively. Patients with distant metastasis have 5-, 10- and 20-year survival rates of 59.24%, 31.52% and 21.99%, respectively [6], while the type of initial therapy is correlated with prognosis [7]. Limited local excisions, with positive margins, lead to high percentages of recurrence or distant metastasis and so with poor prognosis [8]. Soft tissue involvement as first sign of metachronous metastases is reported in very few cases. Oncologic excision should be performed in any suspicion of a soft tissue metastatic deposit [9].

CASE REPORT

A 56-year-old male was referred in our Hospital's Emergency Department (ED) with a firm and tender two-month old abdominal wall lump lying underneath the skin, in the subcutaneous fat, resembling an inflamed abdominal cyst.

Patient's history includes a primary cancer of the left parotid 4 years ago. He underwent a left parotidectomy, with positive margins of resection (R1). Histology confirmed an epithelial neoplasia with a solid acinar cell pattern. Initial oncologic management conducted 25 courses of postoperative radiotherapy. The follow up recommended was six monthly for the first 4 years from initial diagnosis, and remained disease free until his presentation in our ED.

Clinical examination confirmed the mass, which was localized on the left midclavicular, subcostal and lateral to the umbilicus. It was palpable, firm with signs of tenderness. Laboratory tests were normal but clinical suspicion was high

Received: February 17, 2019. Accepted: March 20, 2019

Published by Oxford University Press and JSCR Publishing Ltd. All rights reserved. © The Author(s) 2019.

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited. For commercial re-use, please contact journals.permissions@oup.com

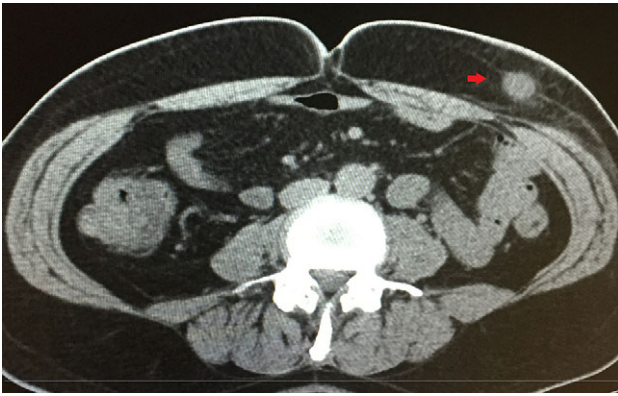


Figure 1: A 1.8 cm × 2 cm lesion (red arrow) revealed in CT scan within the subcutaneous fat.

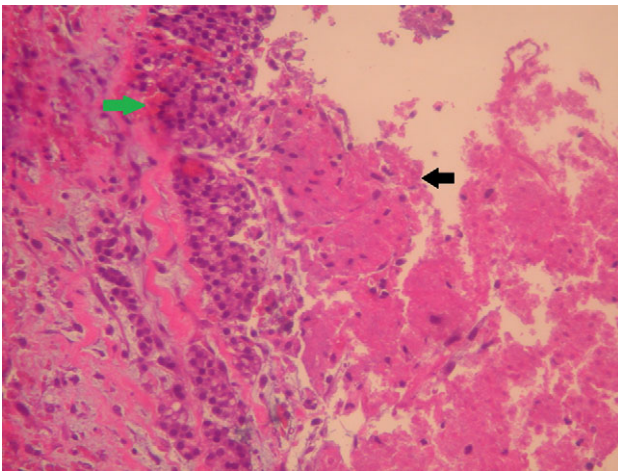


Figure 2: The lesion (green arrow) appears cystic due to its central tumor necrosis (black arrow). Hematoxylin and eosin ×200.

and so a computerized tomography (CT) scan with intravenous contrast (IV) was performed. This revealed a 1.8 cm × 2 cm lesion within the subcutaneous fat (Fig. 1), resembling an inflamed cyst.

The patient was given a 7-day course of antibiotics prior to excision. The mass was then oncologically excised under local anesthesia. Histology identified infiltration of fatty abdominal wall tissue from acinic cells cancer and coagulative tumor necrosis, which led to the cystic formation of the lesion (Fig. 2). Immunohistochemistry revealed positive tumor cells for Keratin 8/18, trypsin and Chymotrypsin (Fig. 3). Further follow up scans revealed no metastasis, local recurrence or any other local growth.

Patient did not undergo further treatment and only scheduled for regular three monthly follow up.

DISCUSSION

The standard of care in primary ACC of parotid gland is the complete surgical removal of the tumor, total or subtotal parotidectomy [2]. ACC has generally not been regarded radiosensitive, however patients with an advanced stage or positive resection margins can be given adjuvant postoperative radiotherapy and chemotherapy, for better local tumor control.

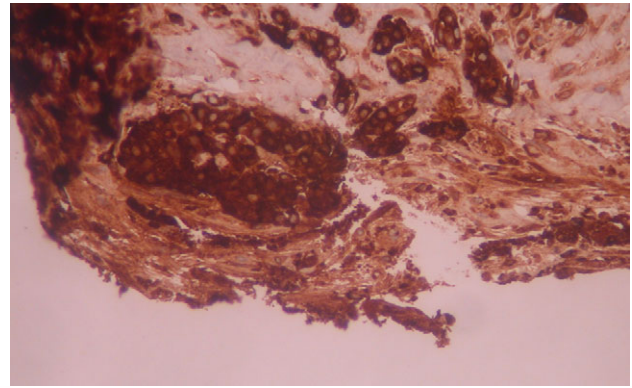


Figure 3: The tumor cells are positive for chymotrypsin in immunohistochemistry. Immunostaining ×200.

Metastatic ACC management is very challenging due to its rarity and scarce data. Metastasectomy seems to be the most preferable approach for any metastatic deposit [9].

Rare reports similar to our case have been published in the literature. There are cases about mixed tumor, ductal carcinoma and adenocarcinoma of parotid gland that metastasized in soft tissue. Varsegi et al. presented in 2008 the first case of widespread cutaneous metastasis from acinic cell carcinoma [4].

Cutaneous/soft tissue metastases from salivary carcinomas are extremely rare [4]. Clinical history is absolutely necessary in reaching a correct diagnosis. When examining subcutaneous or skin lesions of abdominal wall or elsewhere, neoplasms arising from the salivary gland should be regarded as possible sites of origin.

Our case reinforces the empiric knowledge that oncological excision of cutaneous or subcutaneous masses should be performed in every patient with a salivary gland cancer history. There is always a necessity presenting every new similar case in order to conclude in a standard of oncologic management.

CONFLICT OF INTEREST STATEMENT

None declared.

REFERENCES

1. Al-Zaher N, Obeid A, Al-Salam S, Al-Kayyali BS. Acinic cell carcinoma of the salivary glands: a literature review. *Hematol Oncol Stem Cell Ther* 2009;2:259–4.
2. Scherl C, Kato MG, Erkul E, Graboyes EM, Nguyen SA, Chi AC, et al. Outcomes and prognostic factors for parotid acinic cell carcinoma: a National Cancer Database study of 2362 cases. *Oral Oncol* 2018;82:53–60.
3. Vidyadhara S, Shetty AP, Rajasekaran S. Widespread metastases from acinic cell carcinoma of parotid gland. *Singapore Med J* 2007;48:13–5.
4. Varsegi MF, Ravis SM, Hattab EM, Henley JD, Billings SD. Widespread cutaneous metastases from acinic cell carcinoma 20 years after primary presentation. *J Cutan Pathol* 2008; 35:591–3.
5. Spencer ML, Neto AG, Fuller GN, Lunal MA. Intracranial extension of acinic cell carcinoma of the parotid gland. *Arch Pathol Lab Med* 2005;129:780.
6. Patel NR, Sanghvi S, Khan MN, Husain Q, Baredes S, Eloy JA. Demographic trends and disease-specific survival in salivary acinic cell carcinoma: an analysis of 1129 cases. *Laryngoscope Invest Otolaryngol* 2014;124:172–8.

7. Nabil A, Zajera A, obeida S, Salamb B, Sulaiman K. Acinic cell carcinoma of the salivary glands: a literature review. Acinic cell carcinoma of the salivary glands. *Hematol Oncol Stem Cell Ther* 2009;2:259-4.
8. Zenga J, Parikh AS, Emerick KS, Lin DT, Faquin WC, Deschler DG. Close margins and adjuvant radiotherapy in acinic cell carcinoma of the parotid gland. *Otolaryngol Head Neck Surg* 2018;7:88.
9. Lookingbill DP, Spangler N, Sexton FM. Skin involvement as the presenting sign of internal carcinoma. A retrospective study of 7316 cancer patients. *J Am Acad Dermatol* 1990;22: 19-6.