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Case Report

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Lymphoepihelioma-like Carcinoma of the Skin in the Mediterranean

Hanife Özkayalar[1], İbrahim Orgun Deren[2], Gamze Mocan[1]

[1]Department of Medical Pathology, Near East University, Faculty of Medicine, Nicosia, Cyprus
[2]Department of Plastic Reconstructive and Aesthetic Surgery, Near East University, Faculty of Medicine, Nicosia, Cyprus

ORCID IDs of the authors: H.Ö. 0000-0002-1105-4085; İ.O.D. 0000-0001-7119-8868; G.M. 0000-0002-7625-4934.

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Lymphoepithelioma-like carcinoma of the skin (LELSC) is a rare cutaneous neoplasm with a low malignant potential. The neoplasm microscopically similar to undifferentiated nasopharyngeal carcinoma. LELSC is mostly found in the sun-exposed regions of the body. This case report presents an 88-year-old woman with a 7 × 6 mm nodule on the forehead. The Mediterranean region is one of the regions where the sunlight is dense and our patient is the first case which seen and reported in this region.

Keywords: Lymphoepithelioma, skin, sun, light

INTRODUCTION

Lymphoepithelioma-like skin carcinoma (LELSC) is a rare malignant tumor with limited metastatic potential. It is mostly found in sun-exposed regions of the body. Its histological features resemble undifferentiated nasopharyngeal carcinoma (1). To date, less than 70 cases have been reported in the English literature (2, 3). In this article, we present a case of LELSC from the Mediterranean, which has not been previously reported in this region.

CASE PRESENTATION

An 88-year-old woman presented with a 7×6-mm subcutaneous tumor on the left forehead for 12 months. The lesion was mobile and painless. The patient underwent surgery at the Department of Plastic Surgery, Near East University Faculty of Medicine Hospital. Consent form was obtained from the patient's daughter. The tumor was excised with 2-mm margins. Histopathologically, the tumor was non-encapsulated and subcutaneous. The tumor cells had large eosinophilic cytoplasm, vesicular nuclei, prominent nucleoli, and surrounded by dense lymphoplasmacytic infiltrate (Figures 1, 2). These cells were positive for cytokeratin (CK) AE1/AE3 (anti-Pan keratin primary antibody, Roche, Mannhein, Germany), CK 5/6 (anti-CK 5/6 mouse monoclonal primary antibody, Roche, Mannhein, Germany) (Figure 3), and p63 (Ventana anti-p63 mouse monoclonal primary antibody, Ventana, Arizona, USA) (Figure 4) but were negative for Epstein–Barr Virus (EBV) (anti-EBV mouse monoclonal antibody, Cell Marque, California, USA). She did not have any complaints related to nasopharynx or cervical lymph nodes. She was diagnosed with LELSC. No recurrence or metastasis was observed a year after surgical excision.

DISCUSSION

LELSC was first reported in 1988 by Swanson et al. (4). Most cases present as a solitary erythematous firm nodule with telengiectasia or ulceration, similar to our case (1). The most common locations of LELSC are the face and scalp, but other locations, such as the arm and trunk, have also been reported (1, 3). The incidence of LELSC is equal for males and females, and they are more commonly seen in elderly patients (2, 4).

The etiopathogenesis of LELSC is unknown, unlike nasopharyngeal carcinoma. Few reports in Japan have shown the association between EBV and LELSC, although this relationship has not been proven (5, 6). LELSC is most commonly found in sun-exposed regions of the skin (2,7). To date, no case has been reported in the Mediterranean, although it is a region exposed to intense sunlight.

Corresponding Author: Hanife Özkayalar
E-mail: hanife.ozkayalar@neu.edu.tr

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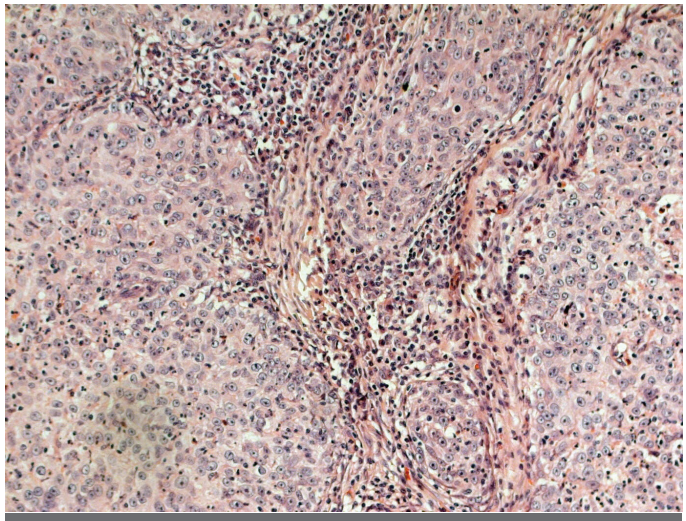

FIGURE I. Epithelioid tumoral cells and inflammatory infiltrate (HδE, ×100 objective)

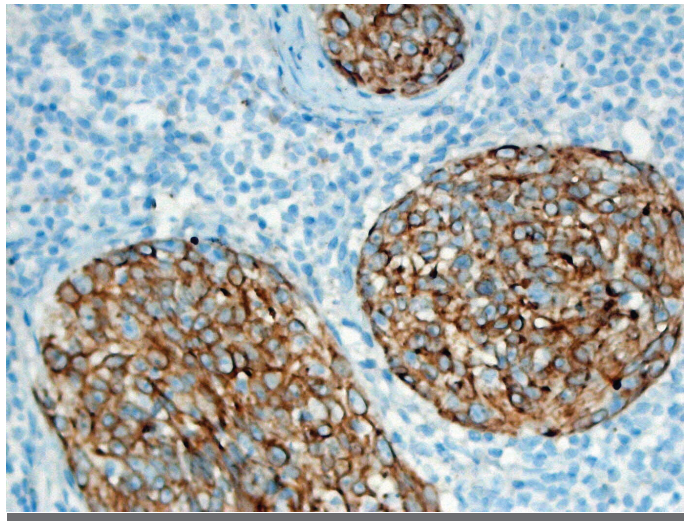

FIGURE 3. Tumoral cells show positive cytoplasmic immunexpression with CK5/6 (×100 objective)

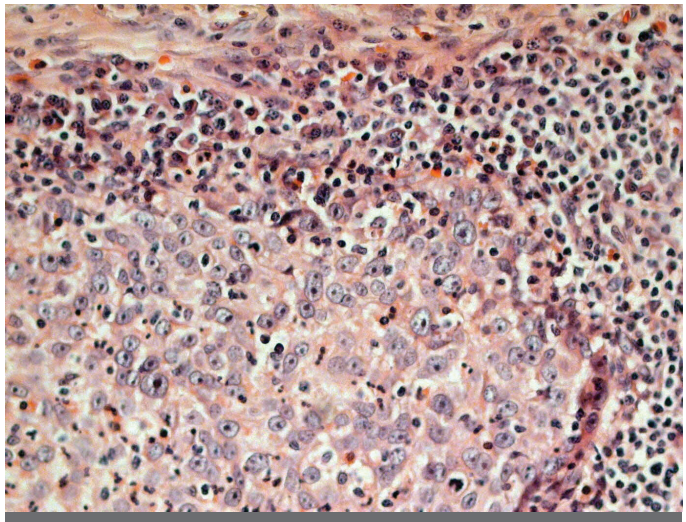

FIGURE 2. Epithelioid tumoral cells and inflammatory infiltrate (HδE, ×200 objective)

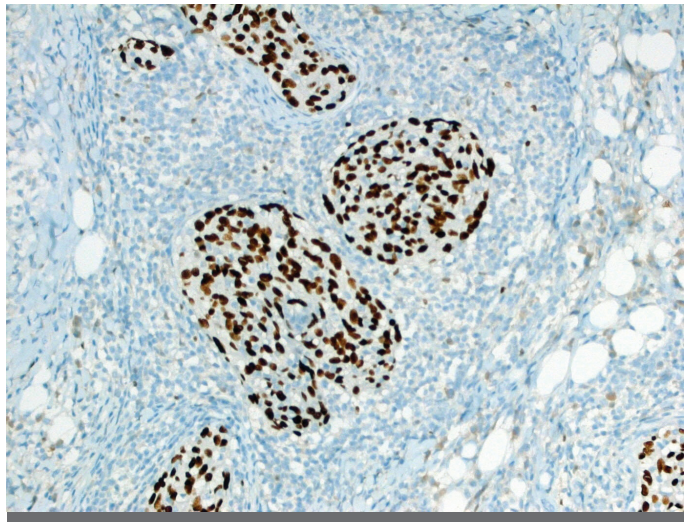

FIGURE 4. Tumoral cells show positive nuclear immunexpression with p63 (×100 objective)

Histopathologically, LELSC is an epithelial neoplasm in the deep dermis (4). It is a non-encapsulated lesion (3). The tumor consists of nests, cords, or sheets of polygonal epithelioid cells with amphophilic to eosinophilic cytoplasm, hyperchromatic nuclei, prominent nucleoli, and increased mitotic activity (1, 8). The tumor cells had dense lymphocytic infiltrate (1, 6, 9). LELSC was strongly positive for CK AE1/AE3, high-molecular-weight CK, p53, CK 5/6, and Cam5.2, and negative for CEA, S100, CK 20, CK 7, and EBV (1, 6, 9, 10).

The treatment methods for LELSC are wide local excision and detailed physical examination and imaging to rule out nasopharyngeal carcinoma (1, 8). Radiotherapy is better than surgical excision if the patient has lymph node metastasis or recurrence (1, 3, 8). LELSC has a low metastatic potential and better prognosis than other skin cancers, such as squamous cell carcinoma (SCC) and melanoma (1, 4, 8). However, some reports have discussed LELSC metastatic to lymph nodes at initial diagnosis (2, 9). At 1-year follow-up, no metastasis or recurrence was noted.

Main Points:

- LELSC is a rare, slow-growing malignant tumor with a low risk of metastasis and recurrence.
- It occurs more commonly in sunlight-exposed skin areas.
- We report the first case of LELSC in the Mediterranean region.

The differential diagnoses of LELSC include SCC, basal cell carcinoma (BCC), skin metastasis of lymphoepithelioma of the nasopharynx or other organs, melanoma, and lymphoma (1, 2, 7). Lymphoepithelioma of the nasopharynx is positive for EBV, but LELSC is not. In addition, lymphoepithelioma of the nasopharynx is more agressive than LELSC (3). SCC is located in the superficial dermis and has connections with the epidermis, unlike LELSC (3, 4). In the recent literature, LELSC is classified as a variant of SCC (3). LELSC, BCC, and lymphoma are histopathologically diffferent from each other. Malignant melanoma has a different immunohistochemical profile, which is CK (-), whereas S100 and Melan-A are (+).

Informed Consent: Consent form was taken from the daughter of the patient.

Peer-review: Externally peer-reviewed.

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