Lymphoepithelioma-like Carcinoma vs Inflamed Squamous Cell Carcinoma of the Skin

Lymphoepithelioma-like carcinoma of the skin (LELCS) is a very rare primary skin neoplasm that most frequently occurs on the sun-exposed skin of the head and neck in elderly individuals. The histogenesis of LELCS remains controversial between an adnexal origin vs an inflamed squamous cell carcinoma (SCC). It has a small tendency toward local recurrence and very limited metastatic potential. Only a few cases have reported metastasis to lymph nodes and internal organs.

Report of Cases | Case 1. A man in his 60s with no significant medical history presented with a solitary asymptomatic indurated plaque on his right temple and a palpable nodule in the right parotid gland. Biopsy of the temple showed an infiltrate of atypical cells in the mid and deep dermis with small nucleoli, scattered mitotic figures, and moderate pink cytoplasm. These atypical cells formed well-defined nests surrounded by dense lymphocytic inflammation (Figure, A and B), and anti-EMA (epithelial membrane antigen) and anti-AE1/AE3 (cytokeratin AE1/AE3 monoclonal antibody cocktail) stainings were positive. Findings of fine-needle aspiration of the parotid mass were also positive for carcinoma.

Wide excision of the right temple lesion and right total parotidectomy were performed. Histologic examination of the right temple lesion showed residual poorly differentiated carcinoma morphologically consistent with SCC with perineural invasion (Figure, C). These atypical cells stained positive with antibodies against AE1/AE3 (Figure, D). The right parotid mass showed poorly differentiated SCC with a prominent lymphocytic response. Lymphovascular invasion and perineural invasion were also identified. The patient underwent postoperative radiotherapy, and there was no evidence of recurrence in 5 years of subsequent follow-up.

Case 2. A man in his 60s underwent multiple excisional biopsies for the same lesion on his left preauricular cheek over the course of 5 years. Pathologic analysis of those excisions showed well-differentiated SCC on the earliest specimens (eFigure, A in the Supplement), moderately differentiated SCC on the next specimens (eFigure, B in the Supplement), and LELCS on the most recent specimens (eFigure, C in the Supplement). In the most recent specimens, there was horizontal fibrosis of the superficial dermis with underlying dense nodular infiltrates in the deep dermis composed of atypical epithelioid cells centrally with a brisk surrounding lymphocytic infiltrate (eFigure, C in the Supplement). The atypical epithelioid cells stained strongly with antibodies against AE1/AE3 and EMA (eFigure, D in the Supplement). Indirect nasolaryngoscopy and Epstein-Barr virus immunoperoxidase staining excluded metastasis from a lymphoepithelioma of the nasopharynx. The tumor was cleared with 2 stages of Mohs micrographic surgery. On the first Mohs layer, perineural invasion was seen. The patient is currently under close follow-up.

Discussion | Currently, LELCS is classified as a variant of SCC, but there is still some debate on the origin of this disease. Both of our cases suggest that markedly inflamed SCC strongly resembles LELCS. In our first case, the primary skin biopsy resembled LELCS, while the reexcision and the parotid metastasis were more characteristic of poorly differentiated SCC. More interestingly, in our second case, the LELCS recurrence originated below the scar from excision of a multiply recurrent SCC, and the course of the disease showed the whole sequential spectrum of lymphoid infiltration and cellular anaplasia.

Although morphologically poorly differentiated, LELCS has been reported as having lower malignant potential than classic SCC, with rare metastases. However, in both of our cases, perineural invasion was identified, with a metastasis to the ipsilateral parotid in the first case. The courses of the disease in our cases, along with the published reports of metastasis to lymph nodes and internal organs with mortality, suggest that LELCS may infiltrate, recur, metastasize through lymphovascular or perineural invasion, and cause death. Therefore, com-
Complete removal is critical for the management of LELCS. Wide local excision or Mohs micrographic surgery may be used. Close follow-up is also recommended.

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Conflict of Interest Disclosures: None reported.


A Case of Bazex Syndrome With Genital Involvement

Acrokeratosis paraneoplastica, or Bazex syndrome, is a unique cutaneous eruption associated with internal malignant conditions, most commonly squamous cell carcinoma of the skin...