

## CONTINUING MEDICAL EDUCATION ΣΥΝΕΧΙΖΟΜΕΝΗ ΙΑΤΡΙΚΗ ΕΚΠΑΙΔΕΥΣΗ

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### Medical Imaging Quiz – Case 40

A 69-year-old woman presented complaining for dysphagia. The esophagogram revealed significant esophageal dislocation and stenosis due to the presence of a smooth bordered mass in the area in addition to prestenotic dilatation right above the esophageal stenosis level (fig. 1). The computed tomography (CT) scan which followed, showed tracheal and esophageal dislocation due to a smooth bordered mass of soft tissue density



**Figure 1.** Esophagogram showing a smooth bordered mass causing significant esophageal dislocation and stenosis in addition to prestenotic dilatation.

ARCHIVES OF HELLENIC MEDICINE 2016, 33(4):574–575  
ΑΡΧΕΙΑ ΕΛΛΗΝΙΚΗΣ ΙΑΤΡΙΚΗΣ 2016, 33(4):574–575

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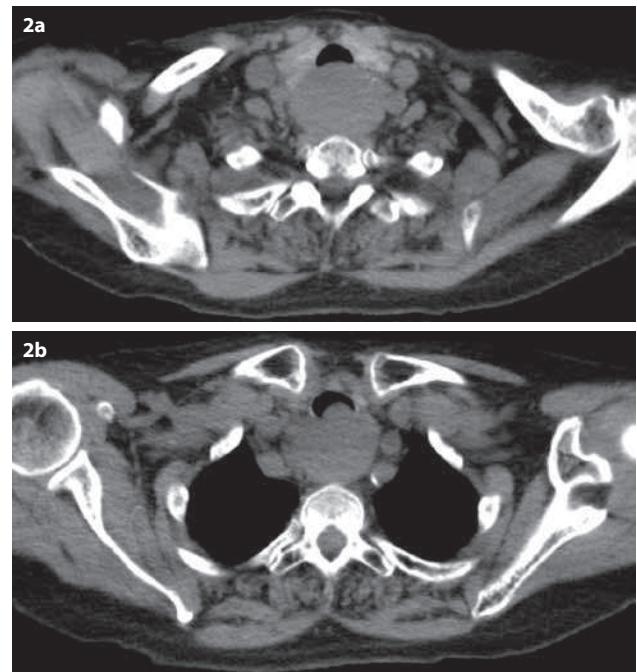
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with a diameter of 4 cm located in posterior upper mediastinum (figures 2a, 2b). The patient consented for surgical removal of the mass which was performed two days later. Histopathologic examination of the surgical specimen revealed low differentiated mitotic epithelial cells within an abundant lymphoid stroma.

#### Comment

*Lymphoepithelioma is a rare undifferentiated carcinoma with prominent lymphoid stroma arising in nasopharyngeal and tonsil-*



**Figure 2.** Computed tomography (CT) scan showing tracheal and esophageal dislocation due to a smooth bordered mass of soft tissue density with a diameter of 4 cm located in posterior upper mediastinum.

lar regions, while lymphoepithelioma-like carcinomas (LELC) are rare tumors, histologically similar to lymphoepithelioma, arising, however, elsewhere in the human body (including lung, thymus, oral cavity, tonsil, larynx, trachea, hepatobiliary tract, bladder, vagina, uterine cervix, vulva, salivary gland, mediastinum, renal pelvis, eyelid) and are probably governed by different pathogenetic mechanisms. The term lymphoepithelioma refers to undifferentiated or poorly differentiated, nonkeratinizing carcinoma with prominent lymphocytic infiltration.

Histologically, lymphoepitheliomas and LELC are considered as squamous cell carcinoma variants and are characterized by undifferentiated mitotic epithelial cells which form nests within the lymphoid stroma. Survival rates seem to be closely related to lymphocytic infiltration degree, to tumor recurrence and appearance of necrosis.

Whenever lung is concerned, tumor appears in most cases as a discrete subpleural nodule whilst ill defined nodule or bilateral pulmonary involvement has been scantily reported. Pulmonary LELC appear on magnetic resonance (MR) scans with nonspecific findings which do not allow differential diagnosis from bronchogenic carcinoma and include iso- to hypointensity signal on T1-weighted and iso- to hyperintensity signal on T2-weighted sequences with intense enhancement. On CT scans of end stage cases, the presence of a large mass in proximity to mediastinum with vascular encasement and peribronchovascular lymph node involvement favors the possibility of primary LELC of the lung but it cannot be overseen that these features may also appear in bronchogenic carcinoma. In contrast to bronchogenic carcinoma, this tumor affects adults in younger age, has no clear sex predilection, minimal association with cigarette smoking and a more favorable prognosis. Differential diagnosis, apart from bronchogenic carcinoma, includes malignant lymphoma and metastatic nasopharyngeal carcinoma. Biopsy of the lesion and examination with immunohistochemical stains that use epithelial markers and leukocyte common antigens will aid diagnosing lymphoepithelioma especially from metastatic nasopharyngeal carcinoma, since primary lung lymphoma is usually disseminated.

Hematogenous metastases are rarely reported with lymphoepithelioma-like tumors and usually occur in bones, whilst affected lymph nodes are present in 25% of the cases. The combination of

surgical resection, combined chemotherapy and local radiation therapy is considered the treatment of choice for these tumors.

Epstein-Barr virus infection is a proved risk factor for nasopharyngeal carcinomas and lymphoepithelioma-like lesions in Asian patients, however, presence or absence of the virus is not proved to alter the prognosis. Especially in Asian patients with age atypical for bronchogenic carcinoma, any case of pulmonary nodules or masses either with or without result of transthoracic biopsy reporting lymphoma or nasopharyngeal carcinoma, primary LELC should always be included in the differential diagnosis.

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