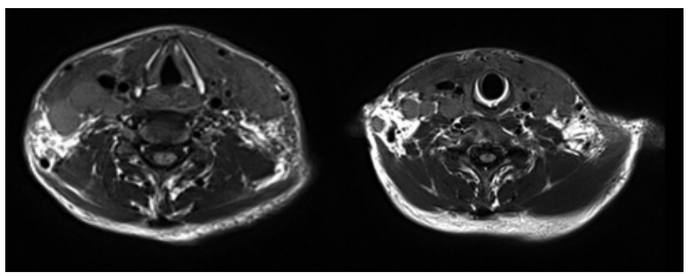
BRONCHIOALVEOLAR CARCINOMA VS. HEAD AND NECK SQUAMOUS CELL CARCINOMA ABOUT 1 CASE WITH BILATERAL CERVICAL METASTASES

Eugen Radu BOIA, Marioara POENARU, Alin Horia MARIN, Caius DOROS, Horatiu Eugen STEFANESCU, Nicolae Constantin BALICA
ENT Department, University of Medicine and Pharmacy, ”Victor Babes” Timisoara

ABSTRACT:
Bronchioalveolar carcinoma vs. head and neck squamous cell carcinoma has been taken into consideration in one case with bilateral cervical metastases.
Cancer of an unknown primary site is a clinical syndrome, accounting for 2%-5% of patients with cancer.
The patient presented laterocervical bilateral metastatatic masses with unknown clinical, radiological or computer tomographical detected primary site of origin.
The evolution was unfavorable, due to fast-growing bilateral tumor masses with involvement of other neck structures. The complementary immunohistochemical tests following surgery revealed an unexpected origin from the lung.
Any other clinical signs or any detectable lung tumor mass by radiological or computer tomographic tests were absent.

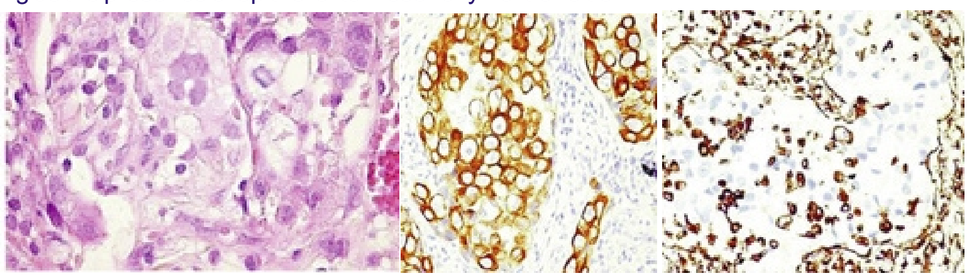
CASE REPORT:
A 43-year-old male patient, was admitted to the ENT Department for clinically detected left laterocervical masses. The admission symptoms and signs were represented by the appearance of multiple cervical lymph node masses (47.4×20.4 mm) involving the left parotid gland and submandibular area, round in shape, renitent, fixed on deep structures but mobile on superficial ones, with celsian signs of suprajacent skin: tumor, rubor, calor, without spontaneous and provoked pain, sicca cough, left upper limb paresthesia and edema, and 5 kg weight loss in the previous month. The patient had smoked 20 cigarettes/day for the previous 18 years. No other comorbidities were associated.
Clinical examination revealed, together with multiple cervical lymph node masses previously described, a left axillary lymph node mass (15 mm in diameter, round in shape, hard consistency, fixed on deep, but mobile on superficial structures, without celsian signs of suprajacent skin).
Chest X-ray corresponded to a normal thoracic image.
Cervical and thoracic contrast enhanced CT scan showed a nonhomogenous mass of 4.74 × 2.04 cm, localized at the level of the left parotid gland and submandibular area, involving adjacent vascular structures. Cervical lymph node masses presented maximal axial diameter of 9.1 cm.



Lung transparency was normal, no mediastinal lymph node enlargement was encountered. A hyperdense area appeared at the level of the T1 vertebral body (osteocondensant secondary dissemination aspect).

Blood tests revealed: Red Blood Cell sedimentation rate=88 mm/h, White Blood Cell=6200/mm 3,Granulocyces=78.4%, Lymphocyte=17.2%, Monocyte=4.4%,Red Blood Cell=3,620,000/mm3, Platelets=245,000/mm3,Hemoglobin=10.6 g/dl, Hematocrit=33.6%.

Possible sites of primary tumor were assessed by 0 degree nasal and rhinopharyngeal endoscopy, 70 degree hypopharingolaringoscopy, oesophagoscopy and suspended microlaryngoscopy. A slight edema of the left lateral hypopharyngeal wall and salivary stasis due to compression by the cervical lymph node masses were revealed.
Several blind biopsies were performed from the rhinopharyngeal, oropharyngeal, hypopharyngeal and supraglottic areas, without successfully identification of a primary tumor site.
The cervical lymph node masses grew rapidly and became bilateral in only two weeks after admittance. The axilary tumor increased and the upper limb edema become more evident.
The patient was further assessed in Haematologic, Thoracic Surgery and Gastroentherology Departments. Enhancement MRI revealed multiple bilateral cervical bilateral lymph node masses (level Ia/Ib sublingual, submandibular; level IIa/IIb and III, jugulocarotid superior and middle) which were confluent and infiltrated the parotid glands, maseter, lateral pterygoid and sternocleidomastoid muscles and subcutaneous fatty tissue.
The contrast showed lymph node involvement in infra, supraclavicular and axilar areas. The aspect was suggestive of Hodgkin lymphoma that time.
The next step in diagnosis was a left exploratory cervicotomy; a diffuse infiltrative tumor involving lateral and anterior cervical areas (parotid gland, maseter, lateral pterygoid and sternocleidomastoid muscles and subcutaneous fatty tissue) was assessed.
The patient acquired respiratory insufficiency and dysphagia due to a marked hypopharyngeal edema and glottic space reduction revealed on 70 degree hypopharingolaryngoscopy. A tracheostoma and a naso-gastric feeding tube insertion were performed.
Biopsies were performed from the tumor mass localized medial to the sternocleidomastoid muscle and lateral of the internal jugular vein. Histopathological evaluation on routine hematoxilin and eosin stain revealed an extensive tumor area composed of groups of malignant epithelial cells with high-grade anaplasia separated by large bands of connective tissue and mixed with striated muscle tissue and lymph node remanent tissue at the periphery of the tumor mass.
Tumor necrosis, vascular stasis and large hemorrhagic areas were also observed, together with several intravascular tumor emboli and perineural invasion. Few scattered cells from malignant epithelial areas seems to have squamous-like morphology but this appearance was not strong enough evidence to diagnose this tumor as a squamous cell carcinoma arising from the head and neck region. To clarify the diagnosis, a panel of immunohistochemical staining was performed, including vimentin, pankeratin (AE1/AE2 type), and specific monoclonal keratins 7, 18, 19, 20, leucocyte common antigen (LCA, CD 45) and thyroid transcription factor 1. All tumor cells had intensly positive reaction for AE1/AE3 type keratin and negative imunostaining for vimentin, although we detected very rare vimentin positive epithelial cells inside the tumor areas, suggesting us the presence of epithelial to mesenchymal transition.



This could explain, partially, the high rate of this tumor development and its aggressive behaviour. Negative immunostaining was observed in tumor cells for CD45, this aspect being an exclusion criteria for the previously suspected Hodgkin lymphoma diagnosis.
Immunophenotyping regarding monoclonal keratins revealed intense positive reaction for keratin 7 and 18, weak, inconsistent positivity for CK19 and negative immunostaining for CK20. This immunophenotype, together with an intense nuclear positive reaction for TTF1 in all tumor cells, strongly suggested the lung as the primary site of the tumor. Most probably, in view of the already presented immunophenotype, the tumor originated from the terminal bronchioles of the lung, as an occult bronchioloalvelor carcinoma.