Laryngeal metastasis as first presentation of hepatocellular carcinoma

Dear Editor,

Hepatocellular carcinoma (HCC) is one of the most common cancers worldwide. Metastases to the larynx from distant primary tumors are very unusual. To our knowledge, the present report is the first case of laryngeal metastasis as the initial presentation of HCC.

Case report

A 55-year-old male with a history of alcohol consumption and smoking. In May 2007 the patient was referred to the Ear, Nose and Throat (ENT) Service with a painless tumor in the anterior neck region that had been present for about 8 months. He reported no associated signs or symptoms. The ENT exploration revealed a single tumor lesion, with a hard-elastic consistency, measuring about 4 cm. Fibrolaryngopharyngoscopy only revealed slight hypertrophy of the left ventricular band. A CT scan showed a predominantly solid tumor of homogeneous density, showing important contrast uptake and measuring 35 x 41 x 50 mm. The lesion had destroyed the left thyroid lamina. The mass extended towards the hemilarynx and infiltrating the sternocleidomastoid muscle, prelaryngeal muscles and anterior margin of the thyroid gland. No significant adenopathies were identified. The diagnosis of the FNAB cytological study was solid tumor of an indeterminate nature.

The biochemical study showed a discrete plasma transaminase elevation (AST: 91 U/l and ALT: 52 U/l). In mid-June 2007, an extensive tumor biopsy was obtained. The tissue appeared intensely friable and hemorrhagic. The intraoperative evaluation of the submitted fragment identified a solid tumor. Based on the histological characteristics and location of the lesion, a thyroid Hürte cell carcinoma was considered. With this diagnosis, a total laryngectomy was carried out with thyroidectomy. The definitive histological study of the global tumor, revealed a trabecular distribution of the tumor cells. The trabecular structures were lined with endothelium, generating a sinusoidal pattern. Moreover, the tumor was not microscopically dependent upon the thyroid parenchyma. A broad immunohistochemical battery was applied to establish the origin of what appeared to be a metastatic lesion with an unknown primary tumor.

The study of the tumor cells revealed positivity with hepatocyte-specific antibody (CHO1E5) and CD10; canalicular positivity for EMA (epithelial membrane antigen), cytoplasmic positivity to keratins (Cam 5.2), and with anti-cytokeratin 18 antibodies (Fig. 1). The histological study led to the diagnosis of “laryngeal metastasis of a carcinoma with histological and immunophenotypic characteristics strongly suggestive of hepatocarcinoma”.

The patient was evaluated by the Service of Gastroenterology, which reported positive serology for hepatitis C virus. The alpha-fetoprotein levels were normal. MRI with gadolinium contrast revealed chronic liver disease with portal hypertension and nine liver lesions presenting compatible with multicentric hepatocarcinoma. FNAB of the liver lesions revealed characteristics suggestive of well differentiated hepatocarcinoma, analogous to those seen in the laryngeal lesion.

In September 2007, compassionate therapy was started with Sorafenib 400 mg/12 hours, though suspension proved necessary after three weeks due to intolerance. In January 2008, chemical embolization of the larger liver lesions was carried out. This procedure was repeated in June 2008 and in March and October 2009. Actually, the patient is in good general con-
dition, with no apparent extrahepatic disease, and with slow progression of the primary neoplastic disease.

Discussion

Laryngeal metastases account for only 0.09-0.5% of all laryngeal tumors (1,2). The majority of laryngeal metastases correspond to malignant melanomas (39.1%) or carcinomas of distant origin such as the kidney (13.3%) (2,3). HCC only exceptionally metastasizes to the larynx. A review of the literature has yielded only three previous cases (4-6). The supraglottic region (35-40%), followed by the subglottis (10-20%) and glottis (5-10%) are the most frequent locations of laryngeal metastases (1,2). The simultaneous involvement of multiple laryngeal locations is common (in about 35% of all cases) (2,3). Of the three reported cases of laryngeal metastasis secondary to hepatocarcinoma, two were located in the supraglottic region (4,5), and the third in the subglottis (6). In our patient, the metastasis destroyed the thyroid cartilage without affecting the laryngeal mucosa.

In the previously reported cases of hepatocarcinoma metastasis to the larynx, the primary tumor was already known (4-6). To our knowledge, the present report is the first case of laryngeal metastasis as the initial presentation of hepatocarcinoma.

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References


