

Small-Cell Carcinoma of the Lung With Valleculae Epiglottica Metastases

Necla Songür, MD¹; Mehmet Turanlı, MD²; Çiğdem Irkkan, MD³; Bekir Kuru, MD⁴; Eda Cömert, MD²

¹Division of Chest Diseases, Ankara Oncology Education and Research Hospital, Ankara, Turkey

²Department of Otorhinolaryngology, Ankara Oncology Education and Research Hospital, Ankara, Turkey

³Department of Pathology, Ankara Oncology Education and Research Hospital, Ankara, Turkey

⁴Department of Surgery, Ankara Oncology Education and Research Hospital, Ankara, Turkey

Abstract

A 46-year-old patient who had concurrent symptoms of valleculae metastases and lung cancer and who was diagnosed as small-cell lung cancer, is presented. The patient is the first case of small-cell lung cancer with valleculae epiglottica metastases. Attention was drawn to the importance of laryngoscopic examination in the evalu-

ation of patients with primary lung cancer who have symptoms suggestive of throat involvement.

Turkish Respiratory Journal, 2004;5(3):196-8

Keywords: *small-cell lung cancer, valleculae, metastases*

Introduction

Lung cancer is the most common cause of cancer death in the world and metastatic dissemination is fairly common. Among patients with lung cancer, the proportion of those with small cell lung cancer (SCLC), which is known to be a highly malignant type with the greatest tendency to rapid dissemination, has decreased over the last decades (1). In the majority of SCLC patients, the tumour is found to have already spread beyond the lung before the diagnosis is made (2). To our knowledge, there has been no report of metastases to the valleculae epiglottica by lung cancer in the literature.

In the present report, a case of SCLC metastasizing to the valleculae which was diagnosed at the same time as the primary tumour, is presented.

Case Report

A 46-year-old man was admitted to the pulmonology department with a one-month history of progressively increasing hoarseness, cough and chest pain. There was no dysphagia. He had a history of 25 pack/year of smoking but had stopped one year previously. Physical examination revealed dullness on percussion and decre-

Corresponding Author: Dr. Necla Songür
Kennedy Caddesi No: 24/11,
06660 Kavaklıdere-Ankara, Türkiye
Phone : +90 (312) 466 43 83
Fax : +90 (312) 466 40 41
E-mail : nsongur@hotmail.com



Figure 1. CT scan of the chest.

ased respiratory sound on auscultation over the lower part of the left hemithorax. Head and neck examination revealed a paralyzed left vocal cord, a mass arising from the left valleculae epiglottica and compressing the epiglottis and the palatine tonsil. Lymphadenopathy, approximately 3 cm x 2 cm in diameter, was noted in the level I and II regions of the left neck. The laboratory profile was within normal limits except for an elevated sedimentation rate (55 mm/h). A CT scan of the chest confirmed a mass in the left hilum that was in contact with the left main stem bronchus, causing collapse of the lower left hemithorax, in addition to pleural effusion and multiple mediastinal lymphadenopathy (Figure 1). A CT scan of the neck disclosed a mass lesion with smooth contours, 15 mm in longitudinal axis and projecting into the lumen, located in the left valleculae (Figure 2). Bronchoscopy revealed a clearly visible lesion in the left main bronchus. Histological examination of the bronchoscopic biopsy specimens showed small-cell carcinoma. Biopsy of the valleculae mass and fine-needle aspiration of the lymph node were performed. Identical histopathological features were noted in both lesions, compatible with a diagnosis of primary small-cell carcinoma of the lung. The tumor cells were arranged in sheets that had small, narrow, and dark cytoplasm with ill defined cell borders and irregular shaped, hyperchromatic finely granular nuclei with inconspicuous nucleoli. Mitotic figures and individual cell necrosis were frequently noted in the tumour cells (Figure 3). Immunohistochemically, the cells were diffuse positive for neuron-specific enolase (NSE) and focal positive for synaptophysin but negative for chromogranin A. The tumour cells were positive for thyroid transcription factor-1 (TTF-1). The patient was assessed as being in the advanced stage of

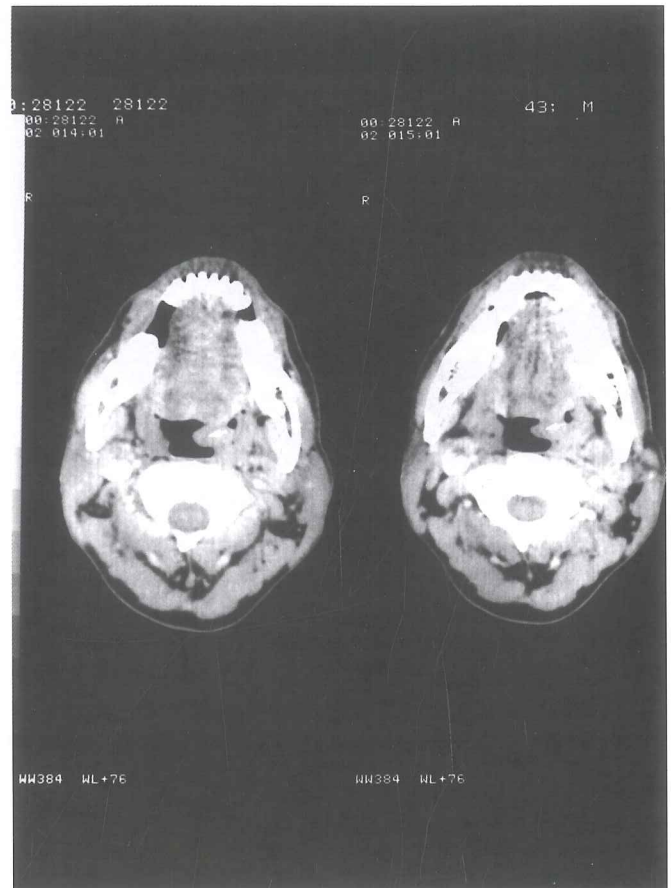


Figure 2. CT scan of the neck.

the disease (3). A platinol-based chemotherapy protocol plus external radiotherapy to the neck as a palliative treatment were started. Following treatment, the tumour in the valleculae and the cervical adenopathy disappeared and the patient became asymptomatic.

Discussion

SCLC has an increased propensity for early metastases. Relapses are common and long term survival rates are poor. The liver, abdominal lymph nodes, bone, brain, adrenal glands, skin, kidneys, pancreas, and breast tissues are the most common sites of metastasis (4,5). We found no reports of valleculae metastases from lung cancer in the medical literature. Thus, to our knowledge, this is the first case of SCLC with valleculae metastases who had concurrent symptoms of valleculae metastases and lung cancer. The spread of the tumour to the valleculae may have occurred as a result of the retrograde movement of tumour cells through the lymphatic vessels of the neck or through the veins of the neck, and from there to the valleculae epiglottica.

Metastatic neoplasms in the oral region and in the neck are rare and account for only 1% of all malignant oral and neck tumours (6). They are rare in oral soft tissues and are most often located in the mandible (7,8). Metastatic tumours in this region typically originate in the breast, followed by the

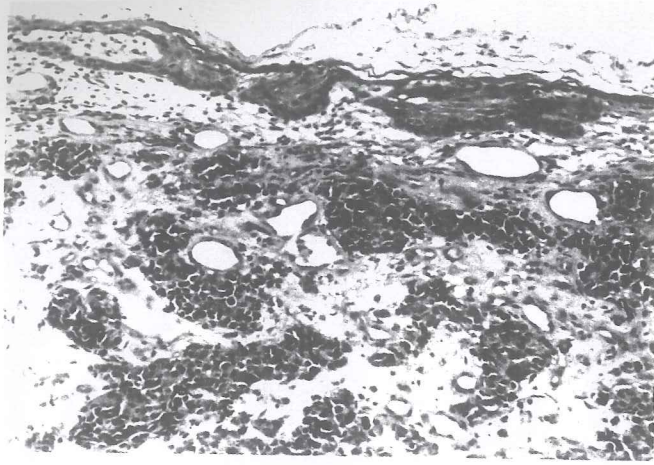


Figure 3. Histopathological features of the biopsy specimens.

lungs, kidneys, thyroid glands, intestines, stomach, testes, and bladder (9-13). In a review of 746 patients with lung cancer, Dreizen et al noted five manifestations of these tumours in the oral and neck region, namely a) the superior vena cava syndrome, b) orofacial metastases, c) cranial nerve palsies, d) Horner's syndrome and e) Cushingoid facies (14). Thirty three percent of these patients developed involvement of the oral and neck region, with superior vena cava syndrome being the most common manifestation (46 patients) and orofacial metastases occurring in 23 patients. Metastatic sites included the mandible in 8 cases, the face in 12, the parotid gland in 2 and the mandibular gingiva in 1 case. In another review of 76 cases of primary neoplasms complicated by tonsillar metastases, 12 cases were bronchogenic carcinoma, with SCLC constituting the majority of the primary lesions (15). The lung should be considered as an important primary tumour site which may metastasize to the oral and neck region (16). Although primary lung cancer with concurrent oral

and neck metastases is an uncommon entity, this possibility should always be kept in mind in patients with symptoms suggestive of a throat involvement.

In conclusion, we would like to emphasize the importance of laryngoscopic examination in the evaluation of such patients.

References

1. George RS, Henry Wagner. Small cell lung cancer. *Chest* 2003;123:259S-71S.
2. Minna JD, Higgins GA, Glatstein EJ. *Cancer: Principles of Practice of Oncology* (5th ed) Philadelphia, JB Lippincott. 1997:911-49.
3. Mountain CF: Revisions in the international system for staging of lung cancer. *Chest* 1997;111:1710-7.
4. Riedel RF, Crawford J. Small-cell lung cancer: a review of clinical trials. *Semin Thorac Cardiovasc Surg* 2003;15:448-56.
5. Jakovljevic B, Stevanovic O, Bacic G. Metastases to the breast from small-cell lung cancer. MR findings. A case report. *Acta Radiol* 2003;44:485-8.
6. McDaniel RK, Luna MA, Stimson PG. Metastatic tumours in the jaws. *Oral Surg Oral Med Pathol* 1971;31:380-4.
7. Tei K, Natoni K, Kida M, et al. Metastatic tumours of mouth and jaws; report of 6 cases (In Japanese). *Head Neck Cancer* 1991;17:150-5.
8. Zohar Y, Ben-Tovim R, Gal R, et al. Metastatic carcinoma of oral soft tissue. *Head Neck Surg* 1985;7:484-6.
9. Hirsberg A, Leibovich P, Buchner A. Metastases to the oral mucosa: Analysis of 157 cases. *J Oral Pathol Med* 1993;22:385-90.
10. Zachriades N. Neoplasms metastatic to the mouth, jaw and surrounding tissues. *J Craniomaxillofac Surg* 1980;17:283-7.
11. Nishimura Y, Yakata H, Kawasaki T, et al. Metastatic tumours of the mouth and jaws: a review of the Japanese literature. *J Maxillofac Surg* 1982;4:253-8.
12. Yoshii T, Muraoka S, Sano N, et al. Large cell carcinoma of the lung metastatic to the mandibular gingiva. *J Periodontol* 2002;73:571-4.
13. Aoe K, Hiraki K, Kohare H. Gingival metastases as an initial presentation of small-cell carcinoma of the lung. *Anticancer Res* 2003;23:4187-9.
14. Dreizen S, Bodey GP, Valdivieso M. The orofacial expression of lung cancer. *Postgrad Med* 1985;78:137-140.
15. Browson RJ, Jaques WE, Lamonte SE, Zollinger EK. Hypernephroma metastatic to the palatine tonsil. *Ann Otol Rhinol Laryngol* 1979;88:235-40.
16. Carlson E, Reddi SP, Monteleone KL. Metastatic lung cancer of the neck: report of 2 cases. *J Oral Maxillofac Surg* 2002;60:1057-61.