Bronchoscopic electrocautery therapy of a solitary endobronchial extramedullary plasmacytoma

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ÖZET

Soliter endobronşiyal ekstramedüller plazmasitomun bronkoskopik elektrokoter tedavisi

Ekstramedüller plazmasitomlar nadir tümörlerdir. Olguların çoğunda baş-boyun bölgesinde görülmekte olup endobronşiyal lokalizasyon oldukça nadirdir. Tedavisi genellikle tek başına rezeksiyon veya cerrahi ile kombine olarak radyoterapi şeklindedir. Biz de, bronkoskopik elektrokoter ile rezeke edilmiş bir soliter endobronşiyal plazmasitomu, oldukça nadir görülmesi ve bronkoskopik elektrokoter tedavisinin başarılı sonucu nedeniyle sunuyoruz.

Anahtar Kelimeler: *Endobronşiyal plazmasitom, bronkoskopi, elektrokoter.*

SUMMARY

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Extramedullary plasmacytomas are rare tumors. In majority of cases tumors arise in the head and neck region and endobronchial localization is extremely rare. The treatment is usually resection alone or combination of surgery with radiotherapy. Herein we present a case of solitary endobronchial plasmacytoma which was resected with bronchoscopic electrocautery, because of extremely rare occurrence of solitary endobronchial plasmacytoma and also the successful outcome of bronchoscopic electrocautery therapy.

Key Words: *Endobronchial plasmacytoma, bronchoscopy, electrocautery.*

Extramedullary plasmacytomas are plasma cell tumors usually located in the nasopharynx and upper respiratory tract (1-2). Primary pulmonary plasmacytoma is rare and endobronchial primary plasmacytoma is the rarest type of extramedullary plasmacytomas as only limited cases have been reported (3-8). The treatment of this rare tumor has included various combinations of surgical resection, chemotherapy and radiotherapy (4,9-12). Herein, we report a case of solitary endobronchial plasmacytoma successfully treated with bronchoscopic electrocautery therapy.

CASE REPORT

A 68-year old male patient was admitted with one year duration of dyspnea, cough and hemoptysis which was developed 10 days ago. The patient was otherwise asymptomatic. On physical examination at left hemithorax localized rhonchi was heard. Laboratory studies revealed a normal complete blood count and serum biochemistry. Chest computed tomography (CT) revealed an endobronchial mass, approximately 1 cm in diameter, in the left main bronchus (Figure 1). During flexible bronchoscopy in left main bronchus an endobronchial vascular polypoid lesion originating from posterior wall was detected (Figure 2). A biopsy was not performed at that time because of bleeding risk. In department of thoracic surgery a rigid bronchoscopy was performed and the lesion was resected by electrocautery. Pathological examination of resected specimen were composed of uniform plasma cells with monotypic light chain and immunoglobulin secretion. These morphological and immunophenotypic characteristics revealed the diagnosis

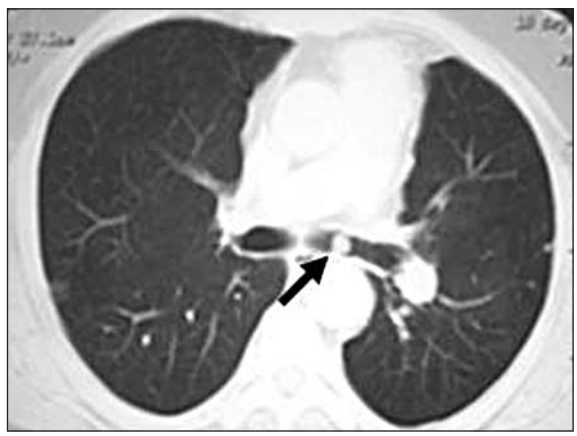

Figure 1. An endobronchial mass in the left main bronchus at chest computed tomography.

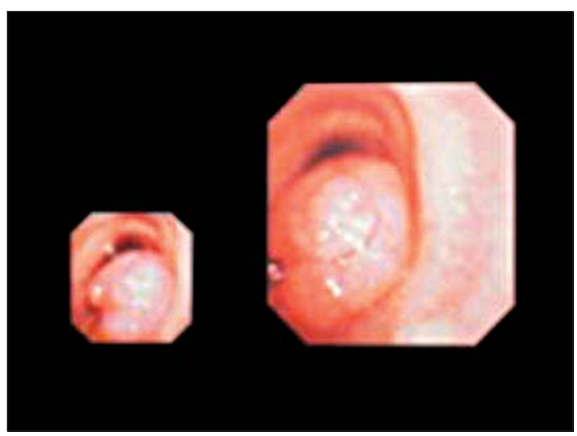

Figure 2. An endobronchial polypoid lesion in left main bronchus.

of extramedullary solitary plasmacytoma (Figure 3A). Bone marrow aspiration and biopsy did not show any involvement by atypical plasma cells favoring a systemic plasma cell neoplasia (Figure 3B). There was no monoclonal gammopathy or Bence-Jones proteinuria. Bone scintigraphy and head radiography showed no osteolytic lesions. According to the clinical, serological, pathological and radiological findings other plasma cell neoplasms were excluded. There was no evidence of recurrence at chest CT one year of follow up (Figure 4A). Since the patient denied control bronchoscopy, a virtual bronchoscopy was performed and no recurrence was detected (Figure 4B).

DISCUSSION

Primary pulmonary plasmacytomas are very rare tumors of plasma cell origin that are difficult to diagnose; biopsy specimens taken by fiberoptic bronchoscopy as well as fine needle aspiration may not be diagnostic (5). These tumors need to be distinguished from reactive inflammatory processes, marginal zone B-cell lymphoma of mucosa-associated lymphatic tissue type with plasmacytoid differentiation, and plasma cell granuloma (13,9). The diagnosis of extramedullary plasmacytoma is made by the following:

1- The presence of a plasma cell tumor, proven by biopsy specimen;

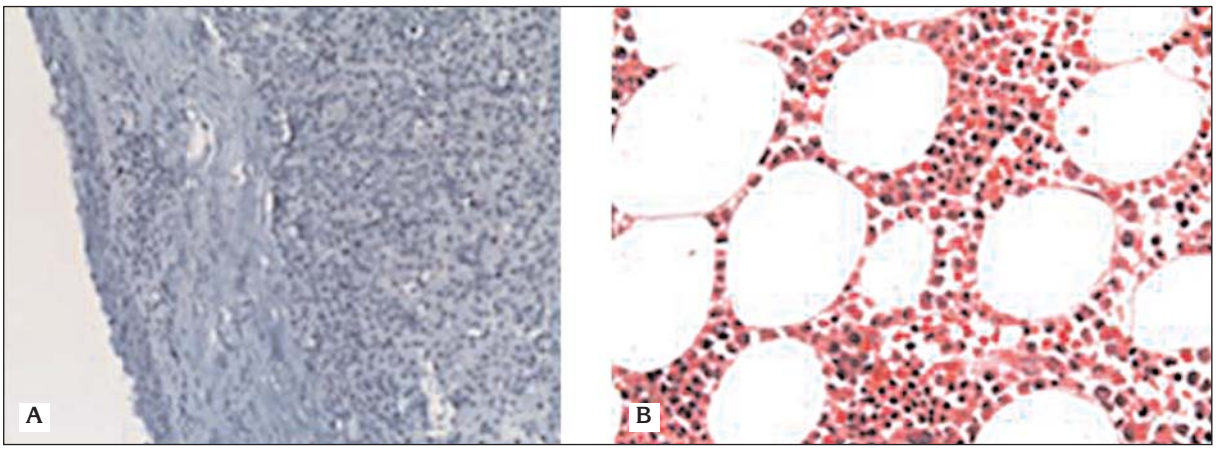

Figure 3. (A) The endobronchial lesion was composed of plasma cells covered by the bronchial epithelium (B) Bone marrow examination revealed no involvement.

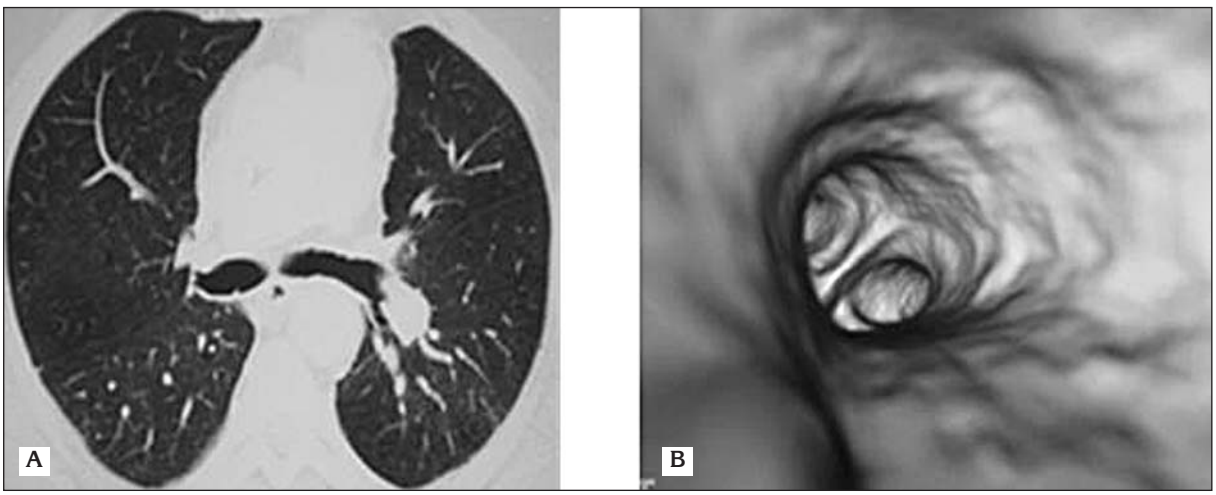

Figure 4. There was no evidence of recurrence at (A) chest CT and (B) virtual bronchoscopy.

2- A bone marrow specimen showing fewer than 10 percent plasma cells; and

3- The absence of systemic signs and symptoms of associated with multiple myeloma such as anemia, hypercalcemia and bone pain (1). In presented case, the diagnosis was made according to these criteria.

Extramedullary plasmacytomas (EMPs) show a strong male predilection. Peak incidence is noted in the 50-70 year age group. EMPs have been reported in various sites in the body, such as the airway passages, gastrointestinal tract and sof tissues. About 80% of EMPs occur in the neck and head region.

In extrathoracic EMP, the recommended treatment is either local surgical resection or irradiation (14). A radiation dose of 40 to 50 Gy is commonly used (1). Recurrent EMP or the development of a new lesion is treated with a repeated course of radiation or chemotherapy. Surgical resection is the best treatment for localized pulmonary plasmacytomas, which occasionally is combined with chemotherapy or radiotherapy. In contrast, the best treatment for primary endobronchial plasmacytoma is still unclear because of insufficient follow-up data in a small number of patients. The different therapeutic modalities have been performed in previously reported cases: Terzi et al. reported a case of endobronchial plasmacytoma at the level of tracheobronchial carina treated with subtotal resection and they reported that complete resection has allowed a long-term survival, free of disease (5). In another reported case, the lesion localized at left mainstem bronchus, was successfully ablated using a Nd-YAG laser (1). Edelstein et al. reported a case who underwent endoscopic debulking followed by laser ablation (4). In their case a control bronchoscopy eight months later showed no evidence of malignancy. Scherwitz et al. presented a case of primary plasmocytoma of the left upper bronchus treated with local excision of the bronchus and postoperative radiotherapy (8). In a recently reported case with a lesion localized in the left main bronchus, a sleeve resection was performed and one year after the operation there was no recurrence (6). To our knowledge, our patient represents the first reported case in whom a bronchoscopic electrocautery therapy was performed.

In conclusion, the patient was presented because of extremely rare occurrence of solitary endobronchial plasmacytoma and also the successful outcome of bronchoscopic electrocautery therapy.

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