MedCrave
Step into the World of Research

Journal of Lung, Pulmonary & Respiratory Research

Case Report

Open Access

CrossMark

Primary pulmonary plasmacytoma: a case report

Abstract

Extramedullary plasmacytoma is a rare tumor, mainly located to the upper aero digestive tract, but primary pulmonary plasmacytoma is exceptional. The diagnosis is based on two elements, firstly a negative complete search of myeloma, secondly, on histological proof. The standard treatment is extended surgical resection and the prognosis remain difficult to establish due to their rarity. We report the case of a patient who presented an isolated pulmonary plasmacytoma confirmed by microscopic and immunohistochemical. The patient was treated by a surgical resection without any adjuvant treatment. The complete remission clinically and radiological was kept after 22 months of fellow up.

Keywords: solitary plasmacytoma, lung, immunohistochemistry, surgery

Volume 5 Issue 3 - 2018

Moukhlissi M,[1] Naim A,[2] Mansouri, S,[1] Benider A[1]

[1]Mohammed VI Center of Cancer Casablanca, Morocco

[2]Mohammed VI University of Health Sciences, Morocco

Correspondence: Naim A, Mohammed VI University of Health Sciences, Casablanca, Morocco, Email doc.a.naim@gmail.com

Received: May 11, 2018 | **Published:** June 29, 2018

Introduction

Plasmacytomas are B-cell lymphomas with expression primarily in bone marrow plasma cell tumor. These plasmacytomas may be primitive, called yet solitary or secondary carrier occurring in multiple myeloma patients. The bone form or intramedullary form is the most common and represents habitual locations. The extramedullary form is rare and affects mainly the upper aerodigestive tract. The isolated lung involvement is extremely rare to see with an average age of 60 years and a male predominance.[1] The clinical presentation is varied and nonspecific.

Presentation of case

We present a 40 years old man with an isolated pulmonary plasmacytoma revealed by hemoptysis associated with scapular pain. The chest radiograph showed a left apical opacity (Figure 1). The chest CT found a 7cm left lobe process tissue without upper mediastinal involvement or pleural (Figure 2). Pathological examination of the preoperative biopsies failed to diagnose plasmacytoma. The patient received in May 2008 a left upper lobectomy with lymph node dissection. The examination of the surgical specimen found a poorly differentiated tumor proliferation, a complete resection without lymph node involvement. Immunohistochemistry confirmed the plasma cell type. Stock looking myeloma makes bone marrow biopsy, protein electrophoresis, 24 proteinuria, serum calcium and renal function was negative. After 22 months of fellow up, the patient is in complete remission clinically and radiological.

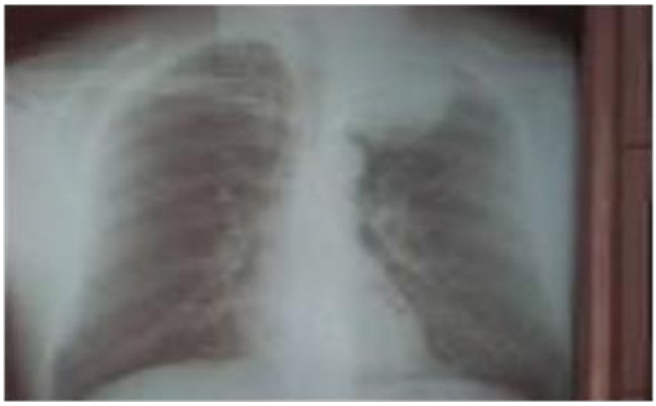

Figure 1 Chest X-ray showing left apical pulmonary opacity.

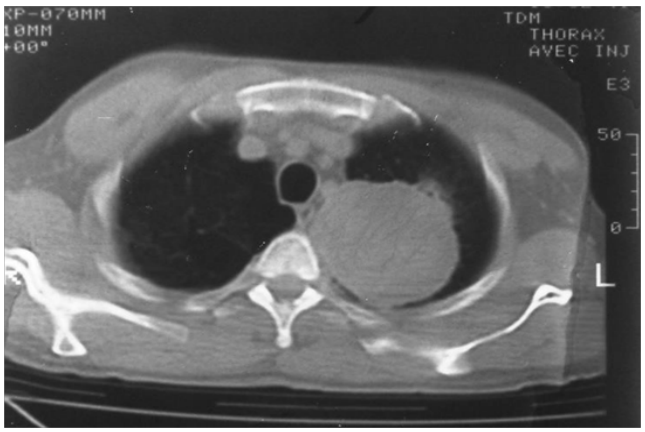

Figure 2 CT image showing an upper 7cm lobe tissue process, in contact with the esophagus and vessels, without pleural or mediastinal invasion.

Discussion

The extramedullary plasmacytoma location is very rare, and isolated pulmonary localization even rarer. Given the rarity of the disease (the small number of cases recorded in the literature), the information is still quite rare. All organs can be affected including the aero digestive tract, however pulmonary location is exceptional (less than 2% of PEM), the average age is around 50 years with a sex ratio of 3/1.[1,2] Clinical manifestations are variable; it may be a cough, dyspnea and sometimes hemoptysis. In a quarter of patients is fortuitous discovery on a routine chest X-ray may show an isolated parenchymal nodule or perihilar mass associated with any mediastinal lymphadenopathy, these images are better characterized on CT and IRM to specify the exact place of the tumor mass, degree of extension, the state of the underlying lung parenchyma and guide the percutaneous biopsy, but are usually unspecific.[1,3]

The diagnosis is based on two elements, firstly a negative complete search of myeloma, secondly, on histological examination of the surgical specimen (the case of our patient), transparietal biopsy, more rarely on the cytology of bronchoalveolar lavage or trans- bronchial biopsies.[1] Histological study will objectify webs of tumor plasma cells morphologically variable from the mature form to the atypical immature form. A complement by immunohistochemistry allows the identification of intracytoplasmic monoclonal immunoglobulins

in tumor cells.[1,2,4] The basic treatment remains extended resection, performing mostly lobectomy with lymph node dissection.

Radiotherapy for inoperable or subjects of incomplete surgical resection, a dose between 40 and 50 Gy allows a good local control. Chemotherapy has little benefice in this disease, it is especially recommended for diffuse forms, multiple locations, in case of aggressive histological form, therapeutic alternative for patients with inoperable or lack of local control after first treatment surgery or radiation.[1,2,5–8] The prognosis is difficult to establish, given the rarity of the condition and the reduced number of cases described in the literature. However, the 5-year survival is around 40% with an average survival of 7 years.[2,8,9]

Conclusion

Pulmonary plasmacytoma is a rare form of PEM with varied and unspecific clinical and radiological expression. The diagnosis is essentially immunohistochemical. Stock looking myeloma is essential. The standard treatment is extended surgical resection and the prognosis is difficult to establish.

Acknowledgments

None.

Conflict of interest

Author declares there is no conflict of interest.

References

1. Etienne G, Grenouillet M, Ghiringhelli C, et al. Pulmonary plasmacytoma: about two new cases and review of the literature. *Rev Med Interne*. 2004;25(8):591–595.
2. Lacaze O, Khaddage A, Court-Fortune I, et al. Plasmocytome intra-medullaire isolé: difficulté diagnostiques et thérapeutiques. *Revue des Maladies Respiratoires*. 2002;19(5):648–650.
3. Egashira K, Hirakata K, Nakata H, et al. CT and MRI manifestations of primary pulmonary plasmacytoma. *Clin Imaging*. 1995;19(1):17–19.
4. Piard F, Yaziji N, Jarry O, et al. Solitary plasmacytoma of the lung with light chain extracellular deposits: a case report and review of the literature. *Histopathology*. 1998;32(4):356–361.
5. Alexiou C, Kau RJ, Dietzfelbinger H, et al. Extramedullary plasmacytoma: tumor occurrence and therapeutic concepts. *Cancer*. 1999;85(11):2305–2314.
6. Wang J, Pandha HS, Treleaven J, et al. Metastatic extramedullary plasmacytoma of the lung. *Leuk Lymphoma*. 1999;35(3-4):423–245.
7. Joseph G, Pandit M, Korfhage L. Primary pulmonary plasmacytoma. *Cancer*. 1993;71(3):721–724.
8. Pujol W, Galateau F, Icard Ph, et al. Plasmocytome pulmonaire primitif. A propos d'un cas. Revue de la littérature. *Revue des Maladies Respiratoires*. 2003;20(4):648.
9. Montero C, Souto A, Vidal I, et al. Three cases of primary pulmonary plasmacytoma. *Arch bronconeumol*. 2009;45(11):564–566.