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Letter to Editor

Primary pulmonary meningioma: A case report and review of the literature

To the Editor,

Primary ectopic meningioma (PEM), occurring outside the cranial and spinal cavities without intracranial lesion, is rare. PEMs have been reported in various extracranial sites, including the ear, nose, orbit, neck, and lung, with only sporadic cases documented annually.[1,2] Primary pulmonary meningioma (PPM) is a rare type of PEM that originates in the lung. It is often incidentally detected during routine health examinations. Hereby, we report the case of a 59-year-old female who underwent surgery for a presumed malignancy, subsequently diagnosed as PPM through histopathological analysis. Additionally, a brief review of the literature on this rare entity is provided.

A 59-year-old asymptomatic female was admitted for evaluation of a right lower lobe nodule detected during a routine chest computed tomography (CT). She had no risk factors for immunodeficiency or other infections. Physical examination and laboratory findings were unremarkable. Contrast-enhanced chest CT revealed a 1.1 cm × 0.8 cm mixed ground glass nodule in the superior segment of the right lower lobe. Due to the nodule's mixed ground-glass appearance and indeterminate nature on CT, the patient underwent uniportal video-assisted thoracic surgery (VATS) for resection. Intraoperative frozen section analysis confirmed the presence of a meningioma. Histopathological examination revealed a well-encapsulated tumor with a convoluted surface and abundant vasculature. Immunohistochemistry was positive for EMA, PR, D2-40, and SSTR2, while negative for S100, STAT6, CD34, TTF-1, CK7, p63, Syn, and Desmin. Ki67 index was approximately 2 %. The patient was discharged two days postoperatively without complications and remained recurrence-free during two years of follow-up.

Consistent with existing literature,[1–3] this case demonstrates that PPMs typically affect middle-aged and elderly women, exhibit indolent growth and are generally benign.[1] Consequently, they often remain asymptomatic and are incidentally detected during routine health evaluations. Preoperative non-invasive diagnostic modalities, such as contrast-enhanced CT or positron emission tomography-CT, often fail to provide a definitive diagnosis due to their nonspecific imaging characteristics. Therefore, surgical resection followed by pathological examination is required for a conclusive diagnosis. Follow-up studies have not documented any recurrences, and our patient remains recurrence-free at two years postoperatively, consistent with the findings of Spinelli et al.[3] who reported no recurrence eight years after wedge resection of a PPM.

In conclusion, PPMs are predominantly benign, slow-growing tumors that pose significant diagnostic challenges preoperatively. Definitive diagnosis relies on histopathological examination following surgical resection. Recurrence is exceedingly rare, and these tumors are associated with an excellent prognosis.

Declarations

Written informed consent has been obtained from the patient.

Availability of data and materials

All data for this study are publicly available.

Declaration of competing interest

The authors have no conflicts of interest to declare.

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