

LETTER TO THE EDITOR

From cough to Schwannoma diagnosis: a case report

Öksürük belirtisi sonrası Schwannoma tanısı konulan bir olgu

İzzet Fidancı¹, Hilal Aksoy¹, Duygu Ayhan Başer¹

¹Hacettepe University, Faculty of Medicine, Department of Family Medicine, Ankara, Turkey

To the Editor,

Coughing, as a reflex, is an important defense mechanism that clears the airways and lungs of secretions and foreign bodies inhaled. As a symptom, cough is the most common reason for hospital admission in the clinical practice of pulmonary diseases. Its prevalence is approximately 10% in the adult age group. Cough can occur in adults for both the respiratory system and non-respiratory system reasons, and cough is one of the most common reasons for seeking primary healthcare services¹.

A sore throat, which may or may not be the cause of coughing, is another common reason for seeking medical care. Annually, 10% of the population applies for primary healthcare services due to sore throat. Infection-related sore throats are mostly caused by viruses².

Schwannomas, also known as benign nerve sheath tumors, are the most common neurogenic tumors of the mediastinum in adult patients. Intrathoracic Schwannomas are commonly referred to as intercostal tumors of the posterior mediastinum or sympathetic nerve-related tumors²⁻⁴.

In our case report, we presented a patient who applied with complaints of a sore throat and cough, but whose chest radiography revealed a mass that was later diagnosed as a Schwannoma.

A 52-year-old male patient admitted to our outpatient clinic with a one-week history of sore throat and cough. He had no chronic disease diagnoses, no surgery history, and no prescriptions. The patient, a university employee, had previously served on active duty in the animal laboratory between 2000 and 2010. Chest radiography was requested because the lung sounds could not be clearly heard in the physical examination. Computed tomography was then requested because a regular-shaped lesion was observed in the upper right lung in the chest radiography (Figure 1); according to the report, it was stated that a well-contoured lesion measuring 6 cm x 3.5 cm with cystic density extending from the upper right lung posterior to the major fissure attracted attention, which could be a hydatid cyst or a peripherally located bronchogenic cyst, and that there was no mass or consolidation observed in either lung parenchyma.



Figure 1. Chest radiography

As a result of the tomography, it was determined that the lesion should be surgically removed due to its size. Exploration was conducted and it was stated

Address for Correspondence: İzzet Fidancı, Hacettepe University, Faculty of Medicine, Department of Family Medicine, Ankara, Turkey E-mail: izzetfidanci@gmail.com Received: 07.06.2023 Accepted: 13.08.2023 Volume 48 Year 2023

that a non-lung-related wide-based cystic lesion in the thoracic wall, adjacent to the posterior mediastinum, was discovered. It was also stated that the lesion was completely excised, and the pathology result was reported as Schwannoma with diffuse cystic areas.

Schwannomas are benign nerve sheath tumors that should be considered and taken into account in radiological evaluation, particularly in cases of mediastinum diseases⁵. In our case report, we present a case diagnosed with Schwannoma who presented with complaints of sore throat and cough and underwent surgery due to a mass appearance on chest radiography.

Schwannomas are the most prevalent neurogenic tumors in the mediastinum, especially in the posterior mediastinum. Schwannomas are a common type of tumor that arises from the peripheral nerve sheath⁴⁻⁷. In a single-center 10-year retrospective study, dermal and subcutaneous Schwannomas were found to be the most common (75.3%), followed by mediastinal Schwannoma (10.9%)⁸. Cases diagnosed with Schwannoma during routine check-ups or when they applied with low back pain were included in the case report by Bozdağ and Zeybek, similar to our case⁵. Song et al. included a case report of a 60-year-old female patient who was admitted with a cough and was diagnosed with a benign Schwannoma located in the posterior mediastinum during her check-up⁸.

Schwannomas may occur due to rare causes, including spontaneous hemothorax, which causes intrathoracic hemorrhage⁹, and in our case, it is thought to be nerve sheath related.

The diagnosis of the patient with a pre-diagnosis of Schwannoma was reported to be a bronchogenic cyst in the case report by Pan et al.¹⁰. However, our case was pre-diagnosed with a bronchogenic cyst or hydatid cyst as a result of radiological imaging methods, but the pathologic diagnosis was reported as Schwannoma.

More attention should be paid to how symptoms commonly encountered in primary healthcare services are approached. A holistic approach model should be employed for the often-seen symptoms, and it should be emphasized that early diagnosis is of vital importance. Since anamnesis is not always sufficient, a physical examination should be performed when evaluating the complaint of cough, which is one of the most common reasons for applying to family medicine outpatient clinics, and the patient then should be holistically evaluated using From cough to Schwannoma

radiological imaging methods if necessary, and it should be remembered that the patient can receive pre-diagnoses for many different diseases, such as the Schwannoma diagnosis, as in our case (Informed consent was obtained from the patient on November 23,2022.).



Figure 2. Thoracic computed tomography.

Author Contributions: Concept/Design : İF; Data acquisition: İF, HA; Data analysis and interpretation: DAB; Drafting manuscript: IF, HA; Critical revision of manuscript: DAB; Final approval and accountability: İF, HA, DAB; Technical or material support: İF; Supervision: IF, HA, DAB; Securing funding (if available): n/a. Ethical Approval: Since this study is a letter to the editor, an ethical approval certificate is not required. An informed consent form was taken from the patient. Peer-review: Editorial review.

Conflict of Interest: Authors declared no conflict of interest.

Financial Disclosure: Authors declared no financial support

REFERENCES

- Özdilekcan Ç. Etiological, diagnostic, and therapeutic approaches to chronic cough in adults. CBU-SBED: Celal Bayar University-Health Sciences Institute Journal. 2018;5:47-51.
- Set T, Ateş E. Approach to sore throat. Klinik Tıp Aile Hekimliği Dergisi. 2017;9:23-6.
- Helbing DL, Schulz A, Morrison H. Pathomechanisms in schwannoma development and progression. Oncogene. 2020;39:5421-9.
- Tish S, Habboub G, Lang M, Ostrom QT, Kruchko C, Barnholtz-Sloan JS, et al. The epidemiology of spinal schwannoma in the United States between 2006 and 2014. J Neurosurg Spine. 2019;32:661-6.
- Bozdağ HG, Zeybek A. Posterior mediastinal schwannoma: with two case reports. Muğla Sıtkı Koçman Üniversitesi Tıp DergisiJ. 2022;9:178-80.
- Nakashima C, Harada H, Shibata S. Mediastinal ancient schwannoma causing intrathoracic bleeding. Ann Thorac Cardiovasc Surg. 2022;28:75.
- Ackman JB. MR imaging of mediastinal masses. Magn Reson Imaging Clin N Am. 2015; 23:141-64.

Fidancı et al.

- Song YJ, Seol SH, Kim S, Kim DK, Kim KH, Kim DI, et al. Benign posterior mediastinal schwannoma— Multiple diagnostic imaging modalities. Clin Case Rep. 2019;7:2585-7.
- Nakashima C, Harada H, Shibata S. Mediastinal ancient schwannoma causing intrathoracic bleeding. Ann Thorac Cardiovasc Surg. 2022;28:75-8.

Cukurova Medical Journal

 Pan Z, Qiu Z, Lv D, Chen F. A case of mediastinal bronchial cyst misdiagnosed as schwannoma: a case report. J Clin Otorhinolaryngol Head Neck Surg. 2022;36:872-4.