

Incidental Parasternal Ancient Schwannoma Detected During Breast Cancer Screening

 Yasser Ali Kamal¹

¹Department of Cardiothoracic Surgery, Faculty of Medicine, Minia University, Al-Minya, Egypt

ABSTRACT

Background: Schwannoma is a rare, slow-growing nerve sheath tumor that is infrequently reported in the anterior chest wall and requires thorough evaluation for accurate identification and appropriate treatment.

Case Report: We describe a case of a 57-year-old woman with an incidentally discovered parasternal ancient schwannoma of the anterior chest wall during breast cancer screening. Contrast-enhanced computed tomography (CT) revealed a well-defined soft tissue mass located in the right third intercostal space. Surgical excision was performed via right anterior thoracotomy. Histopathological examination confirmed the diagnosis of ancient schwannoma. The patient experienced an eventful postoperative recovery, with no recurrence observed during two years of follow-up.

Conclusion: Anterior chest wall schwannomas are rare incidental findings. Accurate imaging and complete surgical excision are essential for diagnosis and management, ensuring favorable outcomes and highlighting the importance of timely recognition of these uncommon tumors.

Keywords: Benign tumor, chest wall mass, intercostal nerve, schwannoma, thoracic surgery.



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Address for correspondence:

Yasser Ali Kamal.
Department of Cardiothoracic Surgery, Faculty of Medicine, Minia University, Al-Minya, Egypt
Phone: +201015321568
E-mail: yasealikamal@gmail.com

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INTRODUCTION

Chest wall schwannoma arising from the anterior intercostal nerves is a rare, benign nerve sheath tumor that may present diagnostic challenges due to its non-specific clinical presentation. It typically originates from peripheral nerves and is characterized by slow growth over a prolonged period, often remaining asymptomatic for many years. Diagnosis is often difficult, as schwannomas can masquerade as more common chest wall masses or even breast lesions.¹

Surgical excision remains the primary treatment approach, with a focus on complete removal to prevent recurrence.² Additional complications due to tumor size or nerve involvement can occur in some cases of schwannoma, indicating the need for careful preoperative planning.³ Although rare, early recognition and treatment are crucial for optimal outcomes. We report a case of a 57-year-old woman with ancient schwannoma of the anterior chest wall, incidentally detected during routine breast cancer screening.



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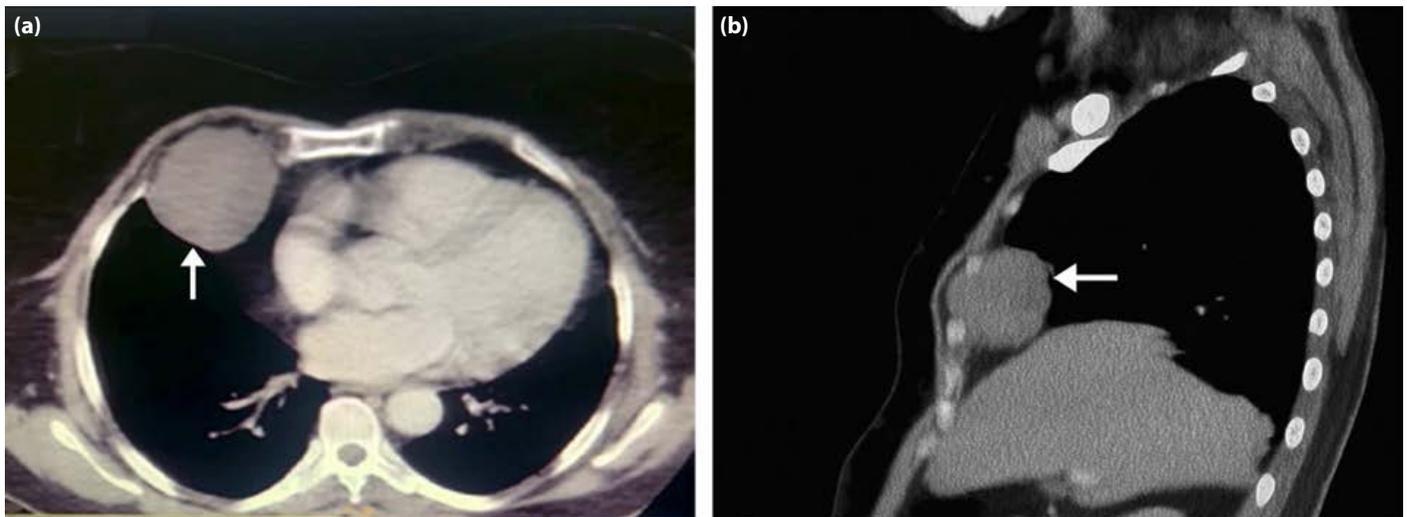


Figure 1. (a) Axial view and (b) sagittal views of contrast-enhanced chest computed tomography demonstrating a well-defined, encapsulated mass located in the right third intercostal space, without invasion of adjacent tissues.

CASE REPORT

A 57-year-old woman with an unremarkable medical history underwent routine breast cancer screening. During evaluation, a painless mass was noted on the right anterior chest wall. Ultrasound demonstrated a well-defined hypoechoic mass at the right third costal cartilage measuring $6 \times 5 \times 5.5$ cm. Biopsy findings suggested an inflammatory pseudotumor. Contrast-enhanced computed tomography (CT) revealed a right parasternal soft tissue mass located at the third intercostal space, measuring 5.8 cm in diameter. The lesion elevated the overlying muscles and displaced the lung without invasion (Fig. 1). Given the benign imaging features and absence of symptoms, a right anterior thoracotomy was performed.

The excised mass (Fig. 2a) was encapsulated, measuring 6×5.5 cm, soft in consistency, with an additional fibrofatty fragment measuring 4.5×3.5 cm. Microscopic examination (Fig. 2b–c) revealed a low-grade spindle cell neoplasm with degenerative changes, consistent with ancient schwannoma. Margins were free of tumor, and S-100 staining was positive (Fig. 2d). The patient had an uneventful postoperative recovery and was discharged on postoperative day 4. At two-year follow-up, there was no evidence of recurrence.

DISCUSSION

Ancient schwannoma is a rare nerve sheath tumor that is infrequently reported in the anterior chest wall adjacent to the sternum (Table 1). These tumors may remain asymptomatic for years and are often incidentally detected during evaluation for unrelated conditions.⁴ Diagnosis can be challenging because chest wall schwannomas may mimic breast or other soft tissue tumors.¹ In the present

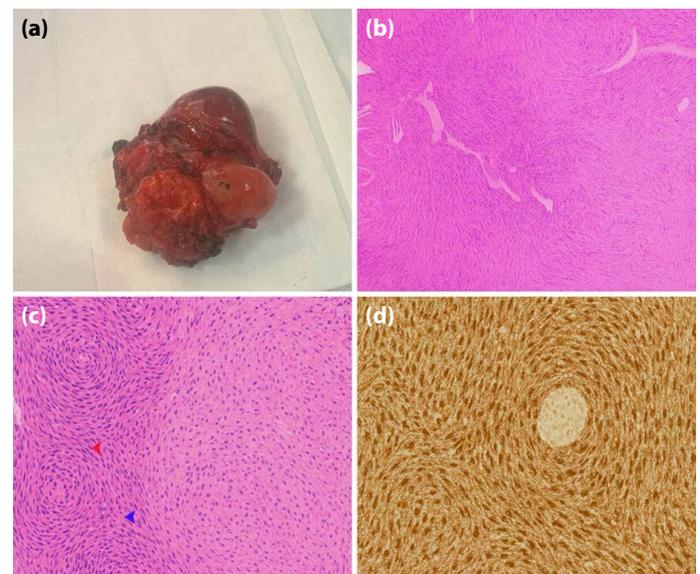


Figure 2. (a) Gross image of the excised mass. (b) Low-power microscopic view of the hematoxylin and eosin (H&E)-stained specimen showing a spindle cell lesion with degenerative changes. (c) High-power view ($\times 400$) demonstrating well-defined hypercellular (Antoni A) and hypocellular (Antoni B) areas, with nuclear palisading (elongated spindle cell nuclei arranged in parallel rows; red arrowhead) and a Verocay body (an acellular eosinophilic zone located between two rows of palisaded nuclei; blue arrowhead). (d) Positive immunohistochemical staining for S-100.

case, the tumor was discovered during routine breast cancer screening, and its anterior chest wall location was unusual.

Table 1. Reported cases of ancient schwannomas of the anterior chest wall

Author	Age (years)/Sex	Presentation	Side	Size	Journal
Olcmen et al., 2010 ^a	13/M	Chest pain	Right	5 × 6 cm	Pediatr Int
Ceberut et al., 2011 ^b	66/M	Mediastinal mass	Left	13 cm (middle mediastinum) and 5 cm (6 th costochondral junction)	Case Rep Med
Akgul et al., 2012 ^c	33/M	Chest pain	Right	5 × 4.5 × 3.5 cm	Turk Gogus Kalp Damar Cerrahisi Derg
Bhat et al. 2012 ^d	34/M	Chest pain	Left	7 × 6 × 3 cm	Nitte Uni J Health Sci
Kale et al., 2015 ^e	51/F	Chest pain, cough	Right	14.1 × 9.1 × 8.8 cm	Med J Dr D Y Patil Univ
Krishnamurthy et al., 2015 ^f	33/F	Painless mass	Left	9.5 × 8.8 × 5.8 cm	Indian J Surg Oncol
Jain et al., 2016 ^g	62/M	Chest wall swelling, pain	Left	9 × 5 × 3 cm	Int J Health Sci Res
Gilbert et al., 2016 ^h	53/F	Breathlessness, cough with expectoration	Right	20 × 2 × 15 cm	Lung India
Kongjarern et al., 2017 ⁱ	53/M	Asymptomatic	Bilateral (multifocal)	Right: 5.5 × 4.2 cm, Left: smaller	J Med Cases
Miyawaki et al., 2023 ^j	65/F	Chest pain and cough	Left	13 cm	J Cardiothorac Surg
Al Sharqi et al., 2024 ^k	44/M	Painless mass	Right	5.1 × 3.9 × 4 cm	Oman Med J
Current case	57/F	Painless mass	Right	6 × 5 × 5.5 cm	J Clin Pract Res

a. Olcmen A, Kara HV, Gunluoğlu MZ, Buyukpinarbasili N, Dince SI. Ancient schwannoma of the chest wall in the pediatric age group: First case in the literature. *Pediatr Int* 2010;52(2):e65-6. [\[CrossRef\]](#)

b. Ceberut K, Naseri E, Celik A, Muslehiddinoglu A, Ergin I. One-stage combined thoracic ancient schwannomas total removal and coronary artery bypass. *Case Rep Med* 2011;2011:497960. [\[CrossRef\]](#)

c. Akgul AG, Cobanoglu U, Yurt ZK. An asymptomatic schwannoma originating from an intercostal nerve: A case report. *Turk Gogus Kalp Damar Cerrahisi Derg* 2012;20(3):662-4. [\[CrossRef\]](#)

d. Bhat SP, Permi HS, Shetty R, Shenoy J, Prasad K, Hegde P. Ancient schwannoma of the chest wall diagnosed by fine needle aspiration cytology- a rare case report. *Nitte Uni J Health Sci* 2012;2(3):27-29. [\[CrossRef\]](#)

e. Kale SS, Gosavi VS, Jagadale RV. Ancient chest wall schwannoma: A case report with review of literature. *Med J Dr D Y Patil Univ* 2015;8(4):505-7. [\[CrossRef\]](#)

f. Krishnamurthy A, Raghunandhan GC, Majhi U. Dumbbell Shaped Schwannoma of the Lateral Chest Wall masquandering as a soft tissue

sarcoma. *Indian J Surg Oncol* 2015;6(3):307-10. [\[CrossRef\]](#)

g. Jain A, Wani AS, Dhar R, Sahu S, Ambrish PI. Ancient schwannoma of chest wall-a rare finding. *Int J Health Sci Res* 2016;6(1):582-4.

h. Gilbert S, Singh D, Kaliappan SM, Mehta SS. Giant solitary ancient schwannoma of the pleura masquerading as bronchopneumonia. *Lung India* 2016;33(4):447-8. [\[CrossRef\]](#)

i. Kongjarern S, Tajarerernmuang P, Wannasopha Y, Wannasai K, Saeteng S. Multifocal Ancient Thoracic Schwannomas: A Case Report and Review of Literature. *J Med Cases* 2017;8(9):277-9. [\[CrossRef\]](#)

j. Miyawaki M, Karashima T, Abe M, Takumi Y, Hashimoto T, Kamohara R, et al. Giant benign intrathoracic schwannoma: a decade-long progression towards fatality. *J Cardiothorac Surg* 2023;18(1):328. [\[CrossRef\]](#)

k. Al Sharqi A, Al Aufi N, Al Hanaai M, Al Kitani H, Al Shehhi R, Al Qadhi H, et al. Ancient Schwannoma of the Anterior Chest Wall. *Oman Med J* 2024;D-24-00466. [\[CrossRef\]](#)

Preoperative diagnosis is difficult due to several factors: 1) non-specific radiologic features, as schwannomas typically appear as well-defined, encapsulated masses resembling other tumors; 2) variable enhancement patterns resulting from necrosis or degenerative changes; and 3) inconclusive biopsy results,

since fine-needle or core biopsies may yield low cellularity or degenerative tissue, leading to misinterpretation. Histologically, ancient schwannomas may exhibit atypical features, further complicating preoperative identification.⁵ In our case, the diagnosis was established postoperatively through histopathological

examination and S-100 immunohistochemistry, underscoring the importance of integrating radiologic, histopathologic, and immunohistochemical findings.

Complete surgical excision is the optimal treatment and is generally curative when free margins are achieved.^{3,6} Although these tumors are typically benign, recurrence can occur, particularly following incomplete excision or in cases of multifocal tumors, necessitating careful surgical planning and long-term follow-up.⁷ In our patient, no recurrence was observed at the two-year follow-up. Recurrent lesions may mimic malignant peripheral nerve sheath tumors on imaging,⁸ making continued radiologic surveillance essential, particularly for larger or multiple lesions.^{6,9,10}

CONCLUSION

Ancient schwannomas of the anterior chest wall are uncommon lesions that may be discovered incidentally. Favorable outcomes can be achieved with appropriate radiologic assessment and complete surgical excision. These tumors should be included in the differential diagnosis of incidental chest wall masses, particularly in asymptomatic patients.

Ethics Committee Approval: This is a single case report, and therefore ethics committee approval was not required in accordance with institutional policies.

Informed Consent: Written informed consent was obtained from the patient.

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REFERENCES

1. Datta S, Pal A, Maiti M, Boler AK. Rare case of chest wall schwannoma with destruction of rib, masquerading as a breast mass. *J Clin Diagn Res* 2014;8(6):FD01-2. [\[CrossRef\]](#)
2. Jain A, Wani AS, Dhar R, Sahu S, Ambrish PJ. Ancient schwannoma of chest wall-a rare finding. *Int J Health Sci Res* 2016;6(1):582-4.
3. Al Sharqi A, Al Aafi N, Al Hanaai M, Al Kitani H, Al Shehhi R, Al Qadhi H, et al. Ancient Schwannoma of the Anterior Chest Wall. *Oman Med J* 2024:D-24-00466. [\[CrossRef\]](#)
4. Ertekin A, Öcalan K. Detection of incidental schwannoma by traumatic hemothorax. *Ulus Travma Acil Cerrahi Derg* 2022 Mar;28(3):399-401.
5. Kale SS, Gosavi VS, Jagadale RV. Ancient chest wall schwannoma: A case report with review of literature. *Med J DY Patil Univ* 2015;8(4):505-7. [\[CrossRef\]](#)
6. Miyawaki M, Karashima T, Abe M, Takumi Y, Hashimoto T, Kamohara R, et al. Giant benign intrathoracic schwannoma: a decade-long progression towards fatality. *J Cardiothorac Surg* 2023;18(1):328. [\[CrossRef\]](#)
7. Kongjarern S, Tajarernduang P, Wannasopha Y, Wannasai K, Saeteng S. Multifocal Ancient Thoracic Schwannomas: A Case Report and Review of Literature. *J Med Cases* 2017;8(9):277-9. [\[CrossRef\]](#)
8. Gilbert S, Singh D, Kaliappan SM, Mehta SS. Giant solitary ancient schwannoma of the pleura masquerading as bronchopneumonia. *Lung India* 2016;33(4):447-8. [\[CrossRef\]](#)
9. Sun WK, Yang W, Ma CH, Xiao XW, Shi Y, Song Y. Multiple intercostal neurilemmomas in a Chinese woman. *J Can Res Ther* 2018;14(12):S1220-2. [\[CrossRef\]](#)
10. Morris PD, Chuong B, Meredith G. Giant ancient intercostal schwannoma: a rare cause of chronic cough and progressive dyspnoea. *ANZ J Surg* 2021;91(11):E734-6. [\[CrossRef\]](#)