Extra-Pleural Dermal Solitary Fibrous Tumor on the Posterior Shoulder: A Case Report.

Sean J. Wallace MD  
*Lehigh Valley Hospital, sean.wallace@lvhn.org*

Robert Teixeira MD  
*Lehigh Valley Health Network, Robert.Teixeira@lvhn.org*

Nathan F. Miller  
*Lehigh Valley Health Network, Nathan.Miller@lvhn.org*

Hina A. Sheikh  
*Lehigh Valley Health Network, hina_a.sheikh@lvhn.org*

Genevieve Guzman  
*Genevieve.Guzman@lvhn.org*

*See next page for additional authors*

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Authors
Sean J. Wallace MD, Robert Teixeira MD, Nathan F. Miller, Hina A. Sheikh, Genevieve Guzman, and Rohit Sharma MD

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Extra-Pleural Dermal Solitary Fibrous Tumor on the Posterior Shoulder: A Case Report

Sean J. Wallace, MD1; Robert Teixeira, MD1; Nathan F. Miller, MD1; Hina Sheikh, MD2; Genevieve Guzman3; Rohit Sharma, MD3

1Division of Plastic & Reconstructive Surgery, 2Health Network Laboratories, 3Division of Surgical Oncology, Lehigh Valley Health Network, Allentown, PA

ABSTRACT

- Mesenchymal in origin, solitary fibrous tumors (SFTs) are primarily seen within the pleura of the lung or in serosal-lined body cavities. Constituting 1-2% of all soft-tissue tumors, solitary fibrous tumors are rare entities, especially when found in extra-pleural locations. Diagnosis requires tissue sampling and staining for immunohistochemical markers. Management of these tumors is based on wide-local excision with histologically negative margins. If negative margins cannot be surgically achieved, adjuvant therapies including radiation have been described.

- In this report, we describe a 74-year-old male with an extra-pleural dermal solitary fibrous tumor. We present the clinical course, surgical procedure, histopathologic features, as well as discuss the treatment options. We also review the published literature reports of dermal solitary fibrous tumors.

- With extra-pleural manifestations of solitary fibrous tumors seldom reported in the literature, it is our hope that reporting these unusual instances will raise awareness of such disease manifestations and allow for earlier diagnosis and treatment.

INTRODUCTION

- SFTs are a spindle-cell neoplasm that is mesenchymal in origin
- Generally benign, they are well-circumscribed, mobile, and painless
- If malignant, the most common site of metastasis is the lungs
- Most commonly affect adults from 40 – 70 years old [1]
- Generally benign, they are well-circumscribed, mobile, and painless
- With extra-pleural manifestations of solitary fibrous tumors seldom reported in the literature, it is our hope that reporting these unusual instances will raise awareness of such disease manifestations and allow for earlier diagnosis and treatment.

CASE REPORT

- 74-year-old male was evaluated by Dermatology for a mass on his shoulder
- Located on posterior shoulder over right trapezius muscle
- Present for 3 years, but rapidly increasing in size in last 2 months
- Painless and without any associated symptoms
- Significant past medical history included actinic keratoses
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- Diagnosis requires tissue sampling and staining for immunohistochemical markers. Double immunostaining with CD34 and bcl-2 is a highly sensitive test for SFTs, maintaining a false positive rate of less than 1%.

- In this case, the patient was found to have positive margins, but elected to forgo additional surgery and pursue adjuvant radiation therapy

- With extra-pleural SFTs seldom reported in the literature, it is our hope that presenting our experience will raise awareness of the disease and allow for earlier diagnosis and treatment of such tumors.

DISCUSSION

- Pathologic diagnosis of SFTs requires recognition of histologic features coupled with supportive positivity of IHC stains
- Similar to their pleural counterparts, this spindle-cell neoplasm showed evidence of characteristic gaping and bifurcating staghorn vessels (Figure 4) and alternating areas of hyper- and hypocellularity (Figure 5)

- Patient evaluated by Surgical Oncology:
  - Wide-hemorrhagic incision biopsy without satellite
  - CT chest, abdomen, and pelvis negative for metastatic disease
  - Referral to Multidisciplinary Cutaneous Oncology Clinic without recommendation for neoadjuvant therapy
  - Wide-local full-thickness excision performed with 1 cm margins
  - Positivity of IHC stains

- After discussion, patient elected to forgo secondary surgery and pursue radiation therapy with plans for 30 total treatments

- Figure 1. A representative routine H&E section at 4x magnification showing fibrous collagen and loose-grade stroma
- Figure 2. A representative IHC stain at 10x magnification showing positivity for CD34
- Figure 3. A representative IHC stain at 10x magnification showing positivity for CD34
- Figure 4. Representative routine H&E section at 10x magnification showing vessels & perivascular tumor growth

References:


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