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# Is it really an abscess? An unusual case of metastatic stromal cell sarcoma of the prostate



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## ABSTRACT

**INTRODUCTION:** Prostatic stromal sarcomas account for about 0.1% of all prostatic malignancies. Local recurrence into bladder, seminal vesicles and rectum has been documented. Distal metastasis, has so far only been reported in lung and bone.

**PRESENTATION OF CASE:** We report the case of a 42 year old man with a subcutaneous metastatic deposit of a prostatic stromal cell sarcoma 5 years after radical prostatectomy. Additional staging with CT- and PET-scan showed lymph node involvement in the neck and left axilla. A core biopsy of the skin lesion was undertaken, of which the histology revealed a low grade spindle cell tumour that was morphologically identical to a previously diagnosed prostatic stromal sarcoma.

**DISCUSSION:** In literature distant metastases to the lung and bone have been documented before. This is the first documented case of a subcutaneous metastasis of prostatic stromal cell sarcoma.

**CONCLUSION:** The preferred treatment for prostatic stromal cell sarcoma is surgery by radical prostatectomy or cystoprostatectomy. There is currently not enough literature on the topic to elucidate the role of chemo- or radiotherapy in loco-regional or distant spread.

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## 1. Case report

A 42 year old man was referred to the Emergency Department by the General Practitioner (GP) under the suspicion of a large infected sebaceous cyst (Fig. 1). The GP had tried a needle aspiration twice without any lasting success. On history the patient had noticed the lesion about a year ago and it had steadily increased in size only causing pain and discomfort for the last month. On examination a 5 × 7 cm irregular lesion was seen above the left shoulder blade. Only the overlying skin was erythematous with no further signs of inflammation. The consistency felt solid/rubbery without clear fluctuance and it appeared to be mobile.

A soft tissue mass was concluded and a staging CT-shoulder–chest–abdomen MRI shoulder and a PET-scan were ordered. The CT and MRI revealed the subcutaneous mass of the left shoulder overlying and indenting the trapezius muscle, but without clear involvement (Fig. 2). No other localisations were seen. The PET scan, in addition to the mass in the shoulder, showed some avid lymph nodes in the neck and left axilla, in keeping with nodal metastasis. A core biopsy of the skin lesion was undertaken, of which the histology revealed a low grade spindle cell tumour that

was morphologically identical to a previously diagnosed prostatic stromal sarcoma. Morphological features included a highly cellular tumour that contains relatively bland spindle cells arranged in relatively short intersecting fascicles with abrupt areas of high mitotic activity. The tumour stained positive for vimentin, a mesenchymal marker, and negative for epithelial markers such as cytokeratin. It is this very close morphological similarity to the original prostatic sarcoma that makes this tumour deposit very likely to be a metastasis rather than a new one.

In 2009 the patient had undergone a radical prostatectomy and pelvic lymph node dissection for a prostate malignancy. The histology then showed a low grade prostatic stromal cell sarcoma arising within a prostatic stromal tumour of uncertain malignant potential confined to the prostate gland. All resection margins were clear. Earlier this year, the patient had a colonoscopy for rectal bleeding and a small polyp was removed from the rectum. This was initially reported as a solitary fibrous tumour with an area of spindle cell proliferation. However after comparison to the previous prostate tissue and the current skin lesion it was reviewed and considered metastatic prostate sarcoma as well. Otherwise the patient's past medical history was unremarkable.

In conclusion the patient presented with a large metastatic subcutaneous deposit of a prostate stromal sarcoma with lymph node metastasis in axilla and neck and a local recurrence within the rectum.

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**Fig. 1.** Irregular 5 × 7 cm mass on back of left shoulder/trapezius area.

## 2. Discussion

Stromal cell tumours of the prostate were first described in 1998 by Gaudin et al. who broadly classified them as either prostatic stromal tumours of uncertain malignant potential (STUMP) or prostatic stromal sarcomas (PSS) [1]. The distinction depended on histological features of stromal overgrowth, variable cellular atypia, mitosis, and increased cellularity [1,2]. There is however no conclusive data that prove that these two entities belong to a spectrum of the same disease entity.

Prostatic stromal sarcomas account for about 0.1% of all prostatic malignancies [3,4]. They usually present symptomatically as haematuria, haematospermia, urinary retention and as a palpable rectal mass [2,3,5,6]. A wide age distribution from 26 to 85 years has been reported [3].



**Fig. 2.** Axial slice of CT chest showing stromal cell sarcoma overlying the left trapezius muscle (arrow).

Macroscopically prostatic stromal sarcomas can have solid areas mixed in with cystic components [5]. They vary in size and can have areas of oedema, haemorrhage or necrosis. Microscopically, PSS display a growth of spindle cells in the stroma of the prostate; either alone or mixed in with benign glandular tissue [5]. These neoplastic spindle cells show cytological atypia, mitotic figures, and necrosis [2,5,6]. The solid component of the tumour can show various patterns of cell arrangement such as storiform, epithelioid, fibrosarcomatous, or patternless patterns [5,6]. Depending on the amount of histological features that are present these tumors can be further classified into high or low grade malignancies [2,6].

The preferred treatment is surgery by radical prostatectomy or cystoprostatectomy [7–9]. There is currently not enough literature on the topic to elucidate the role of chemo- or radiotherapy.

Given the rarity of the disease long term outcomes have only been reported in small series or case reports. Local recurrence occurs in to bladder, seminal vesicles and rectum [7–9]. Distal metastasis, have so far only been reported in lung and bone [7,9]. This is also two of the most common sites of distal metastasis for prostate adenocarcinoma [10]. In this case report we present the first case of a subcutaneous metastasis of a prostatic stromal cell sarcoma to the back of the shoulder. As far as we are aware this has not been presented before.

## Conflicts of interest

None.

## Sources of funding

None.

## Ethical approval

This paper did not involve the research on humans. It was only a case study on the unusual presentation of a single patient. As such ethics approval was not needed at this particular institution (The Canberra Hospital, Canberra, ACT, Australia).

## Consent

We the authors of this paper confirm that written informed consent was obtained from this patient prior to writing this paper. We have done everything possible to de-identify the patient. We have excluded names, hospital numbers, date of birth from this paper.

## Author contribution

ShehanWickramasinghe: First author. Responsible for writing up the paper.

Edwin Beenen: Second author. Responsible for formatting, corrections and advice.

Michael He: Responsible for corrections and general advice.

## Guarantor

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## References

- [1] P.B. Gaudin, J. Rosai, J.I. Epstein, Sarcomas and related proliferative lesions of specialized prostatic stroma: a clinicopathologic study of 22 cases, *Am. J. Surg. Pathol.* 22 (1998) 148–162.
- [2] L. Murer, G. Talmon, Stromal tumor of uncertain malignant potential of the prostate, *Arch. Pathol. Lab. Med.* 138 (2014) 1542–1545.

- [3] A. Rojas-Jiménez, M. Otero-García, A. Mateos-Martin, Stromal prostatic sarcoma: a rare tumor with rare clinical and imaging presentation, *Radiol. Case 7* (7) (2013) 24–31.
- [4] M. Osaki, M. Osaki, C. Takahashi, T. Miyagawa, H. Adachi, H. Ito, Prostatic stromal sarcoma: case report and review of the literature, *Pathol. Int.* 53 (2003) 407–411.
- [5] D. Hansel, H. Herawi, E. Montgomery, J. Epstein, Spindle cell lesions of the adult prostate, *Mod. Pathol.* 20 (2007) 148–158.
- [6] R. Zamparese, F. Corini, A. Braccischi, A. D'Angelo, L. Diamanti, M. Del Vecchio, W. Giannubilo, V. Mambelli, Primary sarcoma of the specialised prostatic stroma, *Case Rep. Pathol.* 2011 (2011) 252805.
- [7] T. Morikawa, A. Goto, K. Tomita, Y. Tsurumaki, S. Ota, T. Kitamura, et al., Recurrent prostatic stromal sarcoma with massive high-grade prostatic intraepithelial neoplasia, *J. Clin. Pathol.* 60 (2007) 330–332.
- [8] P. Colombo, G.L. Ceresolli, L. Boiocchi, et al., Prostatic stromal tumor with fatal outcome in a young man: histopathological and immunohistochemical case presentation, *Rare Tumors* 2 (2010) e57.
- [9] J.E. Musser, M. Assel, J.W. Mashni, D.D. Sjoberg, P. Russo, Adult prostate sarcoma: the Memorial Sloan Kettering experience, *Urology* 84 (3) (2014) 624–628.
- [10] F. Aoun, A. Peltier, R. Van Velthoven, A comprehensive review of contemporary role of local treatment of the primary tumor and/or the metastases in metastatic prostate cancer, *Biomed. Res. Int.* 2014 (2014) 501213.

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