

peer reviewed **CASE REPORT**

## Iliac fossa synovial sarcoma: a case report

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### Abstract

Synovial sarcoma accounts for only 8% of all soft tissue sarcomas. It is a rare malignant type. This case report provides insight into the radiological findings and treatment of iliac fossa synovial sarcoma diagnosed in a middle aged man.

### Keywords

biphasic, spindle cell, trucut biopsy, adjuvant therapy

### Case report

A middle aged male presented with a growth on his upper left thigh which caused him a great deal of discomfort and prevented him from doing his day to day activities. His medical and family history was unremarkable but he was a smoker. He had no previous surgical history.

He was referred for an ultrasound scan where a fine needle aspiration biopsy (FNAB) was done which revealed a biphasic synovial sarcoma. A trucut biopsy was then performed and revealed the presence of both epithelial and spindle cells; the majority being spindle cells. A chest radiograph showed multiple cannonball metastases. His blood results indicated mild anisocytosis.

A computed tomogram (CT) of the chest and abdomen was requested. His blood results showed he was in renal failure thus only a non-enhanced CT of his abdomen and chest was performed. The findings revealed extensive bilateral lung masses, in keeping with metastases (Figure 1). There were also bilateral pleural effusions visible (Figure 2). A mass in the iliac fossa measured 18 x 14 x 13cms and extended from the left inguinal region to just above the level of the left iliac crest. There was displacement of the bladder and bowel loops to the right (Figure 3). There was also edema in the upper thigh. Extensive lytic bony lesions involving the sacrum, left acetabulum and multiple vertebral bodies were reported. Liver metastases were noted as multiple low density lesions.

### Discussion

Synovial sarcomas are a malignant type of soft tissue sarcomas and account for around 8% of all soft tissue sarcomas<sup>[1]</sup>. In adults, soft tissue sarcomas account for only 1% of all malignant tumors, making it a rare disease<sup>[1]</sup>. Typically, synovial

sarcoma develops in an area that recently suffered trauma, although the specific cause / etiology is unknown<sup>[2]</sup>. Synovial sarcoma typically presents as a lump that gradually grows in size and is normally painless<sup>[3]</sup>. The incidence of the disease is predominantly seen in younger people



Figure 1: CT topogram demonstrates the mass in the inguinal area (see arrows). Also visible on the image are the multiple cannonball metastases in the lungs (see arrow heads)

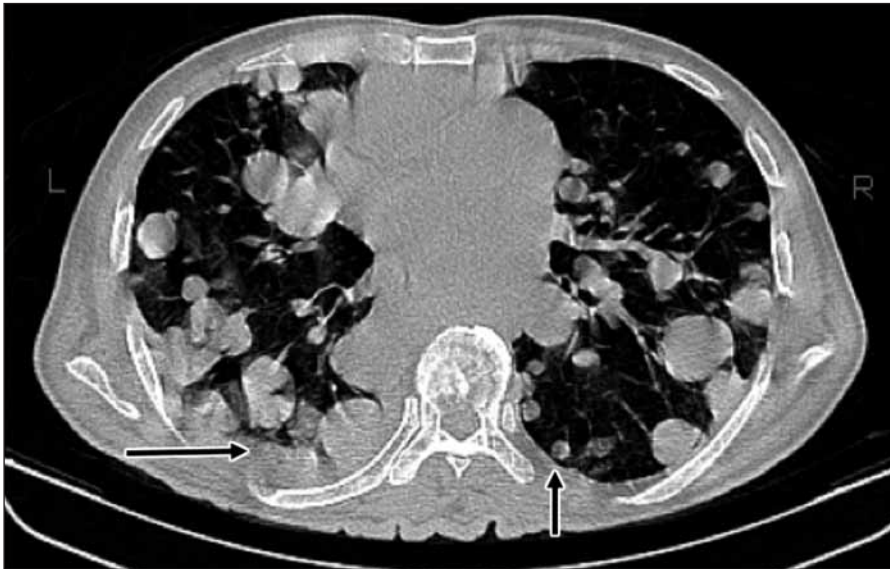


Figure 2: CT axial of the chest demonstrating bilateral pleural effusions (see arrows) as well as cannonball metastases within the lungs.



Figure 3: CT axial view of the pelvis demonstrates the biphasic tumour in the left iliac fossa (see arrow)

of both genders<sup>[4]</sup>. Synovial sarcoma is made up of one or two types of cells which make it distinguishable from other cancers<sup>[5]</sup>. It is usually diagnosed after a biopsy to determine what cells the mass is comprised of<sup>[3]</sup>.

Cytology of a fine needle aspiration showed the mass was compatible with spindle cell tumor. In terms of the two types of cells that can make up the tumor of synovial sarcoma, the first type of cell is the spindle cell which microscopically appears uniform and small in size. The second cell type is epithelial cells<sup>[5]</sup>. Synovial sarcoma is categorized by the type of cell / cell combination of the tumor<sup>[5]</sup>.

A biphasic synovial sarcoma contains both spindle cells and epithelial cells whereas a monophasic synovial sarcoma shows only spindle cells<sup>[5]</sup>. A synovial sarcoma does not arise from the synovium. The most common primary site for synovial sarcomas is in the extremities, near joints<sup>[4]</sup>. This patient's blood results indicated mild anisocytosis; abnormal variation in the size of blood cells<sup>[6]</sup>.

Usually a patient diagnosed with synovial sarcoma is admitted for surgical removal of the mass or for palliative therapy, depending on the staging of the cancer. Staging of cancer is done to evaluate a patient's prognosis and involves

confirming the histology of the tumor, how extensive the tumor is at the site, and establishing if the cancer has metastasized<sup>[7]</sup>. The most common and effective treatment for synovial sarcoma is surgical removal of the tumor, ensuring that adequate margins of removal are achieved, and preferably a margin of normal tissue is also removed<sup>[4, 8]</sup>. Post-surgery adjuvant therapy is usually prescribed, namely radiotherapy or chemotherapy to treat the cancer. Initially, this type of therapy was used in younger patients with early stage synovial sarcomas, but it has been found to work in the treatment of gross residual tumor in adults, post surgery<sup>[3]</sup>.

This patient unfortunately did not have surgery due to extent of his disease. His prognosis was considered to be poor thus palliative treatment was the only option.

### Conclusion

Synovial sarcoma is a rare malignant tumor which typically affects adolescents where the primary site is the extremities<sup>[4]</sup>. This case report presents this disease in a middle-aged man. Unfortunately he could not undergo treatment in view of his extensive metastases. Long term survival is poor in cases where a tumor is unresectable<sup>[8]</sup>.

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