

## POSTER 34

**Title:** What is the Clinical Impact of Staging and Surveillance PET-CT Scan Findings in Patients with Bone and Soft Tissue Sarcoma?

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### Background and Objectives

PET-CTs are becoming increasingly utilized in sarcoma care, workup, and surveillance. This study aimed to describe additional PET-CT findings as well as subsequent workups and changes in clinical course due to those results.

### Methods

Patient records were retrospectively reviewed, and the additional workups and evaluations triggered by PET-CT findings were qualitatively analyzed to document their results. Additional changes in clinical course were documented.

### Results

A total of 183 bone and soft tissue sarcoma patients underwent PET-CT as part of staging or surveillance. Additional workup was performed in 31.5% (n=41 of 130) patients who had positive PET-CT findings. Among these, 36.6% (n=15 of 41) patients had clinically significant findings that altered the clinical course. Overall, 14.8% (n=27 of 183) experienced a change in clinical course due to PET-CT.

### Conclusions

PET-CT often highlights lesions of potential clinical importance. Additional workup as well as change in clinical course were not infrequent. Future, multi-institutional studies should address the value of PET-CT in sarcoma care.

**Table 1. Additional workups due to PET-CT findings**

Type of test	<i>n</i>
Total	51*
Imaging	24
MRI	10
Ultrasound	8
X-ray	3
Mammogram	2
CT	2
Biopsy	22
Lung biopsy	4
Lymph node biopsy	5
Other	13
Colonoscopy	4
Laryngoscopy	1

\*Some patients underwent multiple additional tests

MRI, magnetic resonance imaging; CT, computerized tomography

**Table 2. List of additional workups and other changes in clinical course.**

Case	Workup(s)/Change
1	MRI femur → MRI pelvis → bladder biopsy → diagnosis of urothelial carcinoma
2	Thyroid ultrasound → biopsy → diagnosis of Hashimoto's thyroiditis
3	MRI chest → excisional biopsy → confirmation of metastatic recurrence
4	CT abdomen/pelvis → recurrent abscesses identified → antibiotics started
5	MRI pelvis and foot → MRI foot reveals recurrent nodule → resection
6	Neck lymph nodes removed, tonsillectomy, lung nodule biopsy, colonoscopy (negative) → resections and lung nodules were metastatic
7	Colonoscopy → rectal biopsy → confirmed adenocarcinoma
8	Supraclavicular lymph node biopsy → confirmed Hodgkin lymphoma
9	Possible recurrence biopsied → confirmed recurrence
10	Possible recurrence biopsied → confirmed recurrence
11	Renal biopsy → diagnosis of renal oncocytoma
12	Lung nodule and inguinal lymph node biopsy → confirmed metastasis → chemotherapy initiated
13	Knee biopsy → confirmed metastasis
14	Pancreas biopsy → confirmed metastasis
15	Lymph node biopsy → confirmed metastasis
16	Metastasis ruled out for lung nodule previously noted on CT
17	Palliative RT started for necrotic paraspinal metastatic lesion
18	RT dose reduced due to concern for femoral avascular necrosis
19	Re-excision of tumor
20	Metastatic lung nodule resected
21	Metastatic lung nodule resected
22	Metastatic lung nodule resected
23	Metastatic lung nodule resected; chemotherapy regimen changed
24	Denosumab started for diffuse, bony metastasis
25	Denosumab started for diffuse, bony metastasis
26	Denosumab started for diffuse, bony metastasis
27	Chemotherapy regimen changed

MRI, magnetic resonance imaging; CT, computerized tomography; RT, radiotherapy.