Ewing’s sarcoma (ES) is the second most common primary sacral tumor. ES are aggressive tumors with a tendency toward recurrence following resection and pronounced proclivity toward hematogenous metastasis to lungs and bone.

A 52-year-old woman presented with pain in her right posterior thigh radiating to the back of the knee. A magnetic resonance imaging showed an irregularly shaped right presacral mass. A core needle biopsy revealed a small, round blue cell neoplasm suggestive of a primitive neuroectodermal tumor. Staging workup with whole body Positron emission tomography (PET) showed no other area of abnormally increased uptake of fluorodeoxyglucose. After four cycles of therapy and radiotherapy repeat pelvic MRI, CT and PET scan showed significant shrinkage of the mass and normalization of fluorodeoxyglucose uptake. Six weeks later the patient presented with acute shortness of breath and PET-CT demonstrated increased uptake within bilateral pulmonary hila suggestive of metastatic disease. A subsequent biopsy of the lung confirmed the metastatic ES.

This case report demonstrates that despite adequate control of the local disease, multimodal therapy did not appear to effect metastasis. Although the recent Inter-group study suggested that the addition of IE to traditional regimens may confer a local control benefit, the use of IE was not associated with improved event-free survival. This raises the possibility that micrometastases had pre-dated the onset of chemotherapy and even went undetected by PET scanning.