

Cervical Carcinoma with Distant Metastases

Clinical History

A 68-year-old woman presented with a history of post menopausal bleeding for six months. She also had multiple medical conditions, including insulin dependent diabetes mellitus, sarcoidosis and left hemiparesis secondary to a cerebrovascular accident eight years back. A clinical examination revealed a necrotic ulcer in the cervix along the posterior lip. Biopsy revealed squamous cell carcinoma and vaginal examination suggested left parametrial involvement.

In view of the initial diagnosis of stage IIB cervical carcinoma, the decision was made to initiate definite chemoradiation immediately after completion of staging. In the absence of distant disease, the plan was to give 45 to 50 Gy of intensity modulated radiation therapy (IMRT) to the pelvis. The patient was not considered a candidate for vaginal brachytherapy. FDG PET•CT and pelvic MRI scans were ordered for comprehensive staging and to evaluate for additional metastases.

Imaging Findings



Fig. 1



Fig. 2

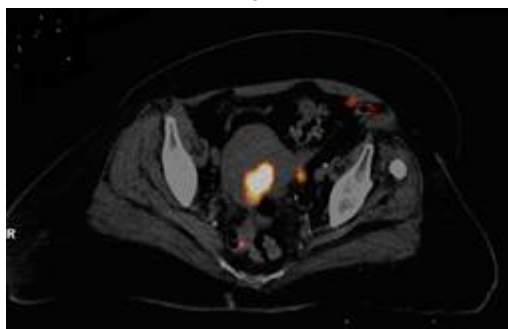


Fig. 3

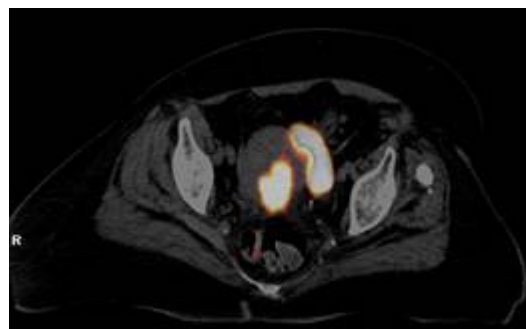


Fig. 4

The FDG PET•CT study showed a hypermetabolic primary pelvic mass with extension up to the left lateral pelvic wall and left internal iliac vessels without infiltration into the lateral wall. The tumor extended posteriorly to the anterior rectal wall without rectal invasion (Figs. 3 and 4).

In addition, the scan showed physiological bowel uptake that was unrelated to the current malignancy and was likely due to bowel adherence to the anterior abdominal wall from a prior surgery. This caused stasis and pooling of secretions in the bowel loop which demonstrated increased FDG uptake.

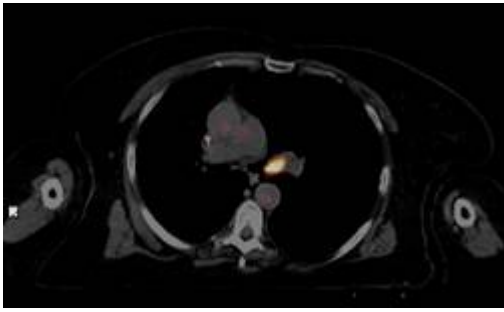


Fig. 5

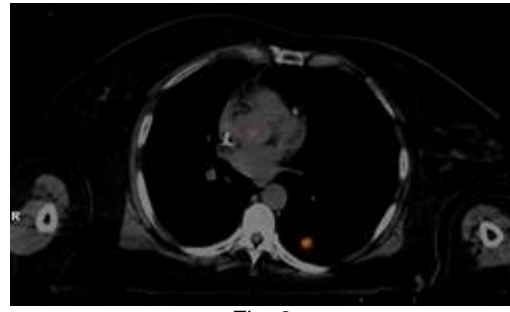


Fig. 6

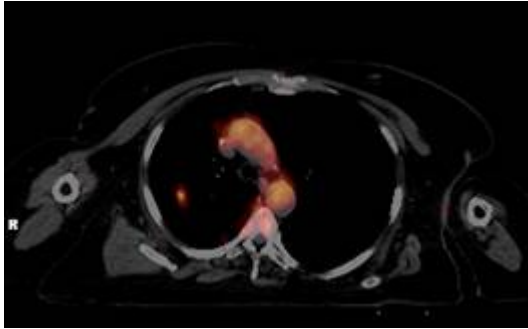


Fig. 7

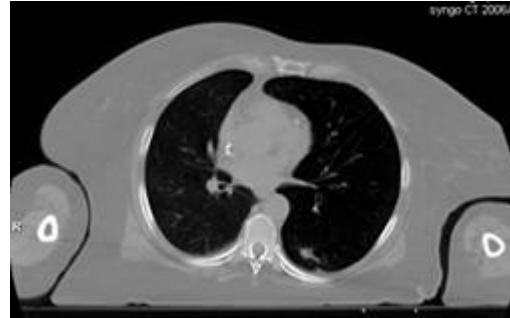


Fig. 8

The PET•CT scan demonstrated intensely hypermetabolic left hilar nodal metastases. There was also hypermetabolic lung nodules in the right upper and posterior aspect of the left lobe suggestive of metastases (Figs 5 and 6).

Diagnosis

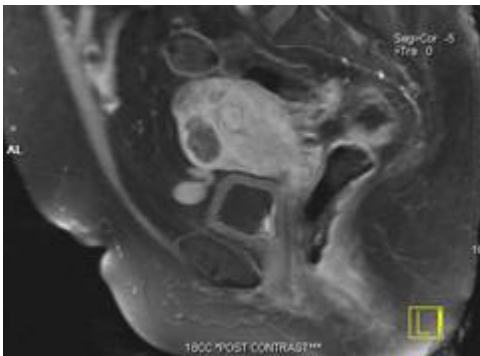


Fig. 9

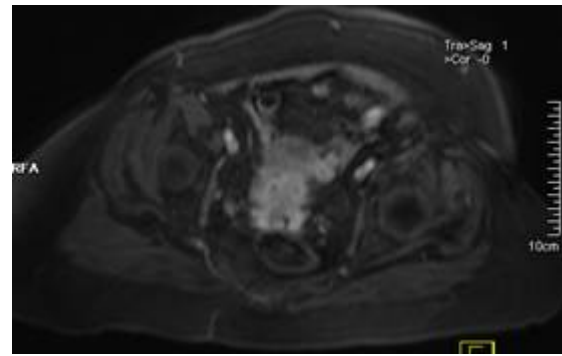


Fig. 10

The PET•CT scan confirmed the presence of metastatic cervical carcinoma, and a pelvic MRI scan performed with gadolinium contrast confirmed the PET•CT assessment of the extent of the primary pelvic tumor.

Discussion

In view of the PET•CT findings, which were suggestive of lung and mediastinal metastases, the patient was upstaged to stage IVB. These findings indicated advanced stage disease associated with only a 20-30 percent chance of a five-year survival rate, and therefore, the patient was put on palliative radiotherapy.

Data courtesy of M.D. Anderson Regional Cancer Center, Orlando, Florida

* Any of the protocols presented herein are for informational purposes and are not meant to substitute for clinician judgment in how best to use any medical devices. It is the clinician that makes all diagnostic determinations based upon education, learning and experience.