

# P.E.T. CASE OF THE MONTH

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Fig. 1

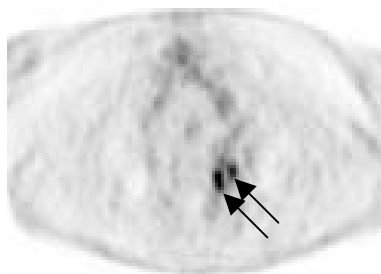


Fig. 2

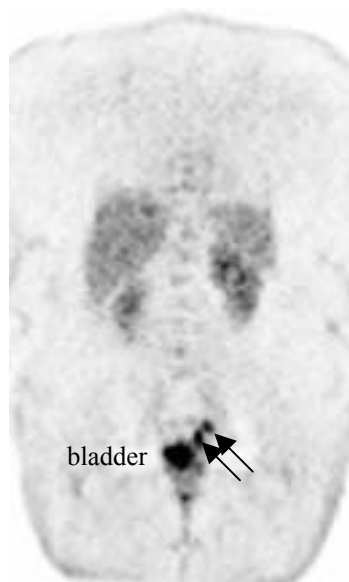


Fig. 3

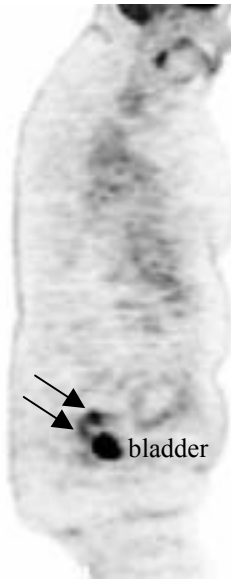


Fig. 4

This 46 year old woman was post resection of stage 3A papillary serous carcinoma of the **endometrium**. She had been subsequently treated with chemotherapy and radiotherapy. Follow-up CT (Fig. 1) and ultrasound exams showed a left pelvic mass but could not determine whether it was benign or malignant.

A PET scan was obtained which showed two foci of intense FDG uptake in the pelvis to the left of the midline, just superior and posterior to the bladder (Figs. 2-4). These were felt to represent malignant lesions.

A transvaginal biopsy showed recurrent endometrial papillary serous adenocarcinoma. An exploratory laparotomy was then performed and demonstrated recurrent tumor adherent to the rectosigmoid and to the left ureter, corresponding to the lesions seen on PET.

**How did the PET help?** : The PET outperformed CT and US by indicating the malignant nature of the observed mass and demonstrating that there were two foci of involvement as opposed to one. Furthermore, no other sites of disease were identified in the pelvis or in the rest of the body. Those would have been a contraindication to further surgery.

In two recent papers looking at patients being followed after surgery for endometrial carcinoma, PET was found to be the most accurate method for assessing for local and distant recurrent tumor<sup>1,2</sup>. The combined results showed a sensitivity of 98% and an accuracy of over 90%. In 12% of patients unsuspected metastases were detected.

(1) Ann Nuc Med 2003;17:197-203

(2) Eur J Nuc Med Mol Imaging 2002; 29:1132-1139