

Case Description:

Patient is a 65-year-old woman with a history of FIGO stage IIIC1 grade 2 endometrioid endometrial adenocarcinoma diagnosed in 2023 after initially presenting with post-menopausal bleeding. She underwent total robotic hysterectomy, bilateral salpingo-oophorectomy, and bilateral pelvic sentinel lymph node dissection. Surgical pathology demonstrated FIGO grade 2 endometrioid carcinoma measuring 5.9 cm and with 12 mm of 14 mm myometrial invasion. Noted was cervical stromal involvement and extensive lymphovascular invasion. Additionally, tumor involved the RIGHT fallopian tube. There was no involvement of the uterine serosa. Four (4) of 8 sentinel pelvic lymph nodes contained tumor, with the size of the largest metastasis measuring 4 mm. Immunohistochemistry showed intact nuclear expression of MLH1, MSH2, MSH6, and PMS2. Noted was non-mutant staining of p53. She then received adjuvant chemoimmunotherapy and pelvic external beam radiation therapy at an outside hospital. She was treated to a dose of 4500 cGy in 25 fractions with a simultaneous integrated boost to 5500 cGy in 25 fractions to the areas of gross disease. The superior border of the treatment field was at the inferior portion of the L4 vertebra. She then received an HDR vaginal cuff brachytherapy boost to a dose of 1200 cGy in 2 fractions to the vaginal cuff surface using a 3.0 cm cylinder.

On surveillance imaging, the patient was clinically NED until PET/CT in mid-2025 showed several PET-positive lymph nodes. CT-guided retroperitoneal lymph node biopsy of a PET-positive LEFT para-aortic lymph node demonstrated metastatic endometrioid carcinoma. She was recommended to receive salvage external beam radiation therapy to the entire para-aortic chain to 4500 cGy in 25 fractions with a simultaneous integrated boost to the PET-positive lymph nodes to a dose of 5875 cGy in 25 fractions.

Contouring Homework:

Contour the most inferior slice of the CTV_4500

Contour the CTV_4500 at the level of the third section of the duodenum

Contour the transverse duodenum

Contour the PET-avid RIGHT retrocrural lymph node