An unusual pattern of lesions in a case of metastatic uterine leiomyosarcoma

Xu, L[1], King, K[1,2]
[1]St George Hospital, Kogarah, NSW, Australia
[2]School of Women's and Children's Health, UNSW Medicine, Sydney, NSW, Australia

Background

Uterine leiomyosarcoma (uLMS) is a rare uterine mesenchymal neoplasm which accounts for 1-2% of all uterine malignancies and typically affects peri- or post-menopausal women[1]. It has tendency for haematogenous dissemination and frequently metastasises to lung, peritoneum, bone and liver[2]. Regardless of stage, uLMS has poor overall prognosis[1]. The gold standard for management is total abdominal hysterectomy (TAH) with or without bilateral salpingo-oopherectomy (BSO) and debulking of extrauterine tumour. The effect of adjuvant systemic therapy or radiotherapy on survival remains uncertain[3].

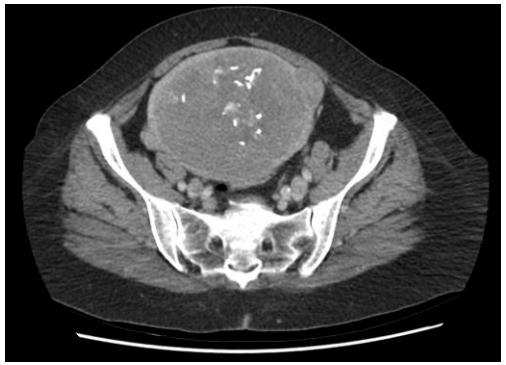

Figure 1. CT showing large lobulated pelvic mass

Case

A 69-year-old post-menopausal woman presented with a three-day history of increasing per vaginal (PV) bleeding, passing clots up to 150mL in size. She had no previous cervical screening tests, menopause at age 53 without hormone replacement therapy and two previous normal vaginal deliveries. Examination revealed a bulky, firm uterus palpated to the umbilicus and a 5mm wide mass fungating through the endocervical canal. She also had subcutaneous masses to the suprapubic area (3x3cm), left chest wall (15x15cm) and left buttock (6x6cm). Ca 125, Ca 19.9 and CEA tumour markers were not elevated. CT chest, abdomen and pelvis showed a 11x15x19cm lobulated pelvic mass with extensive subcutaneous and bony metastatic disease in the abdomen, pelvis and chest including T6 and T7 lesions with extension in the central canal (Figures 1, 2, 3). MRI revealed T6 vertebral metastasis with extension to the cord however no overt compression. Radiotherapy and dexamethasone were subsequently commenced. She was given medroxyprogesterone and tranexamic acid which improved PV bleeding. Histopathology from endocervical curettage revealed a benign polyp while core biopsies of subcutaneous masses revealed benign spindle cell tumour. TAH with BSO, small bowel resection due to a 4cm adherent mass and excision of suprapubic, chest and buttock subcutaneous masses were performed. Tissue histopathology from this procedure demonstrated metastatic uLMS.

Discussion

Diagnostic challenges associated with uLMS are demonstrated in this case by the unusual pattern of lesions at presentation and lack of clear diagnosis from investigations pre-operatively. Distinguishing uLMS from differentials including smooth muscle tumours of uncertain malignant potential and leiomyoma variants is vital in determining treatment options and prognostication. While adjuvant therapies for uLMS are still being studied, this case shows use of radiotherapy to prevent spinal cord compression, a potential complication of distant uLMS metastases.

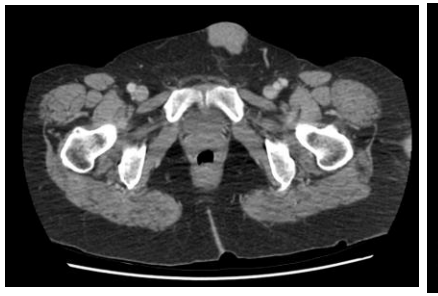

Figure 2. CT showing suprapubic subcutaneous metastases

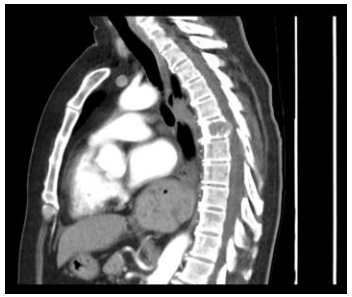

Figure 3. CT showing bony metastatic disease to thoracic vertebrae

References
1. Mbatani N, Olawaiye AB, Prat J. Uterine sarcomas. Int J Gynaecol Obstet. 2018 Oct;143 Suppl 2:51-58.
2. Bartosch C, Afonso M, Pires-Luís AS, Galaghar A, Guimarães M, Antunes L, Lopes JM. Distant Metastases in Uterine Leiomyosarcomas: The Wide Variety of Body Sites and Time Intervals to Metastatic Relapse. Int J Gynecol Pathol. 2017 Jan;36(1):31-41.
3. Roberts ME, Aynardi JT, Chu CS. Uterine leiomyosarcoma: A review of the literature and update on management options. Gynecol Oncol. 2018 Dec;151(3):562-572