A Case of Metastatic Small Cell Neuroendocrine Cervical Carcinoma with Fistula Formation

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Aim

To describe the case of a patient with metastatic small cell neuroendocrine cervical carcinoma (NECC) with fistula formation and perform a review of the literature.

Case

LT was a 54-year-old referred to the Gynae-Oncology Service with post-menopausal bleeding. She also reported months of urinary frequency, dark urine, abdominal/lower back pain and fatigue. This is on a background of a pulmonary embolism in 2015 and 100 pack-year smoking history. On examination, a pelvic mass was felt 3cm above the umbilicus and on speculum examination, there was an offensive discharge and large exophytic cervical mass. Her blood results were largely unremarkable. A CT abdomen/pelvis demonstrated a 9.8x6.7x8.5cm necrotic cervical mass with enlarged bilateral pelvic lymph nodes and marked dilatation of the right renal pelvicalyceal system. A pelvic MRI confirmed invasion of the mass into the bladder and upper urethra.

LT underwent an examination under anaesthesia in theatres, with biopsy, cystoscopy and bilateral ureteric stenting. Histopathology confirmed the diagnosis of a high-grade neuroendocrine carcinoma of small cell type. A 3-way indwelling catheter was inserted. With multidisciplinary involvement, LT was commenced on Carboplatin/Etoposide chemotherapy regimen however died one month after the first cycle from presumed overwhelming sepsis secondary to disease progression and chemotherapy treatment.

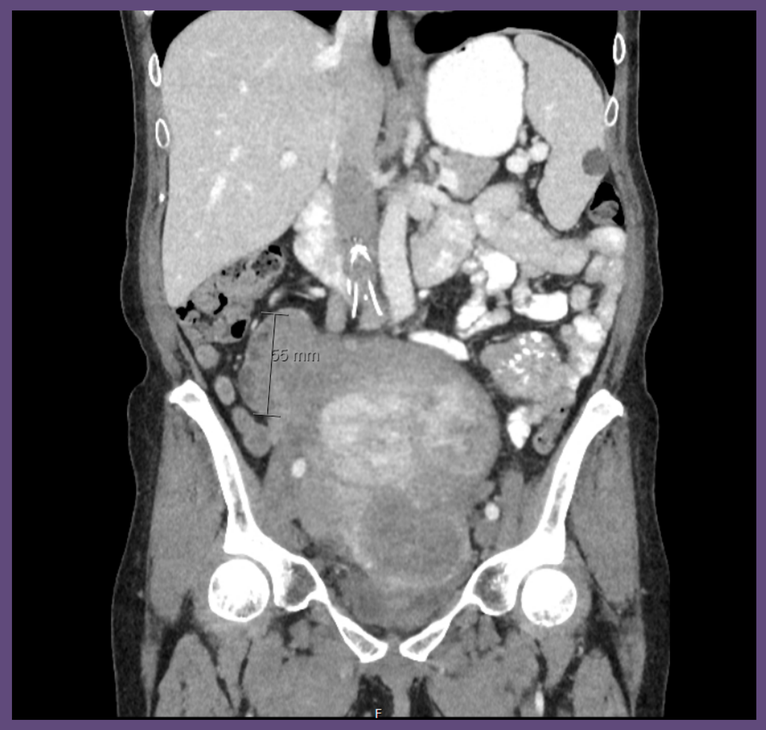

Figure: Commuted Tomography scan of LT"s abdomen/pelvis, coronal view

Discussion

While cervical cancer is a prevalent malignant tumour of the female reproductive system, NECC account for only 1-1.5% of all cervical cancers.[1] NECC share similar clinical manifestations to squamous cell carcinomas and adenocarcinomas of the cervix including vaginal bleeding, abnormal vaginal discharge, pelvic pain or pressure. NECC has the propensity to spread distantly involving the liver, adrenals, bone and brain and may also present with a paraneoplastic syndrome such as Cushing syndrome, hypercalcaemia or syndrome of inappropriate antidiuretic hormone secretion (SIADH).[2]

Currently, there is no standardized management for NECC. Based on small studies in the literature, multimodal treatment with radical surgery and adjuvant/neoadjuvant chemotherapy is the mainstay for early disease and combined radiation/chemotherapy is used for advanced or recurrent disease. A large number of chemotherapy regimens have been described in the literature for the treatment of NECC but cisplatin/carboplatin and etoposide alone or in combination with other substances were the most common.[1] Given the mean 5-year overall survival rate is only 34% with current management therapies, further research into novel therapies (e.g. immunotherapy and targeted therapies) is warranted.[2]

Conclusion

NECC are an aggressive histological variant of cervical cancers with poor prognosis. Due to the lack of reported cases and subsequent research, there is currently a lack of standardised treatment.

References

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2. Tempfer CB, Tischoff I, Dogan A, Hilal Z, Schultheis B, Kern P, et al. Neuroendocrine carcinoma of the cervix: a systematic review of the literature. BMC Cancer. 2018;18(1):530.