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Cisplatin

Various toxicities: case report

A 77-year-old woman developed *Listeria monocytogenes* meningitis secondary to exacerbation of pyometra and leucopenia, and cytomegalovirus infection during treatment with cisplatin for stage IIB cervical cancer.

The woman, who was diagnosed with stage IIB cervical cancer, started receiving concurrent chemoradiotherapy (CCRT) comprising cisplatin [route not stated] 40 mg/m² for 6 cycles, whole-pelvis irradiation and brachytherapy. MRI before brachytherapy showed increase in the fluid retention in the uterine cavity. On the first day of the brachytherapy, she had no signs of infection, and laboratory investigations showed grade 2 leucopenia, grade 3 neutropenia, grade 4 lymphopenia and CRP 0.41 mg/dL. She received the fifth cycle of cisplatin on the day after brachytherapy. Two days after the fifth cycle of cisplatin (three days after the brachytherapy), she presented with malaise and fever (38.8°C). She was tested to be negative for COVID-19, and she was therefore discharged from the outpatient clinic. However, the next day, she arrived to the emergency department due to worsening general condition and decreased consciousness, with a fever (37.9°C) and a Glasgow Coma Scale (GCS) score of 13 points (E3, V4, M6). Laboratory investigations showed WBC 2300 /μL, lymphocytes 56 /μL, neutrophils 2254 /μL and CRP 1.39 mg/dL. CT scan showed extensive pyometra with small inflammation of the small intestine, showing the focus of infection. Her consciousness deteriorated to a GCS of 7 points (E2, V1, M4), with left conjugate eye deviation and suspected right paralysis. Head CT and MRI revealed only subacute cerebral infarction in the left occipital lobe with an unknown association with the deteriorating consciousness. Based on the findings, pyometra was determined to be the predominant site of infection.

The woman underwent transcervical drainage. Transvaginal removal of the abscess was performed. Reddish-yellow intrauterine purulent material was observed. Given the generalised deterioration of general condition and consciousness, sepsis was suspected, and meropenem was started. However, her general condition continued to deteriorate, with destabilisation of her respiratory condition. She exhibited a septic shock. She additionally developed frequent seizures, and therefore tracheal intubation was performed. In view of the frequent seizures, levetiracetam was started. On day 3 of admission, *Listeria monocytogenes* was detected in the blood and the pyometra material. She was then promptly initiated on ampicillin and gentamicin for *L. monocytogenes*. A lumbar puncture was performed to find out the cause of the prolonged unconsciousness. The initial CSF pressure was 18cmH₂O, and the CSF gross findings revealed sunshine dust. CSF examination showed an increased polynuclear cell count and total protein. FilmArray meningitis/encephalitis panel assay identified *L. monocytogenes* and cytomegalovirus. She was diagnosed with *L. monocytogenes* meningitis triggered by exacerbation of pyometra. Ganciclovir was added to the continued treatment with ampicillin and gentamicin. Her blood tests and vital signs improved, and she was transferred from the ICU to the general ward on day 24 of admission. Four months after admission, she spontaneously opened her eyes, and she had stable state of consciousness (GCS: 8 points, E4, VT, M4). However, she still required mechanical ventilatory support.

Matoba Y, et al. Meningitis caused by Listeria monocytogenes in a locally advanced cervical cancer patient with pyometra: A case report. Gynecologic Oncology Reports 37: 100799, Aug 2021. Available from: URL: http://doi.org/10.1016/j.gore.2021.100799