Bendamustine/dexamethasone/rituximab

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Cytomegalovirus reactivation : case report

A 71-year-old man developed cytomegalovirus (CMV) reactivation following treatment with bendamustine, dexamethasone and rituximab for mantle cell lymphoma [*duration of treatment to reaction onset not stated; not all routes stated*].

The man, who had a medical history of **type 2 diabetes mellitus, hypertension, chronic kidney disease stage3 and diastolic congestive heart failure**, was diagnosed with **mantle cell lymphoma**. He started receiving **cyclical rituximab 375 mg/m² on day 1, bendamustine 90 mg/m² per day and oral dexamethasone 12mg daily on days 2 and 3**. She received second cycle after **four weeks**. Two weeks after second cycle, she presented to the emergency department due to **fever of 103°F**, significant left lower quadrant abdominal pain and watery diarrhoea from the previous 5 days. Other investigations including vital signs were unremarkable. Other investigations revealed generalised abdominal tenderness with minimal guarding. Laboratory work-up revealed haemoglobin of 8 g/dL, WBC's count of 1700 /mm^3, absolute neutrophil count (ANC) of 1100 /mm^3 and platelet count of 98000 /mm^3. His blood cultures tested negative. CT abdomen/pelvis revealed inflammation involving the entire colon and terminal ileum but no perforation or abscess. He was then treated with piperacillin/tazobactam. Clostridioides difficile toxin assay, stool culture,Giardia antigen, Cryptosporidium antigen, norovirus GI and GII polymerase chain reaction were negative and white blood cell or blood occult were not in the stools. On day 5 of hospitalisation, colonoscopy demonstrated oedema, erosions, erythema, friability and ulceration involving the terminal ileum, entire colon and rectum. His piperacillin/tazobactam was discontinued and he was treated with ganciclovir. Histopathology showed cytomegalic stromal and endothelial cells with granular intracytoplasmic inclusions characteristic of CMV enteritis. Positive CMV immune-histochemical staining supported the involvement of the terminal ileum and entire colon, sparing the rectum. These investigations revealed the diagnosis of CMV reactivation associated with bendamustine, dexamethasone and rituximab. On day 11, CMV DNA quantification was 14800 IU/mL. Despite ganciclovir therapy, he was afebrile and his diarrhoea persisted. Furthermore, investigations revealed negative blood cultures and negative Doppler ultrasound of the extremities for venous thrombosis and unchanged repeat computed tomography of the abdomen/pelvis except for mild new perisplenic ascites. He was found to have normal serum β-D-glucan levels, ANC remained more than 1000 /mm^3. Follow-up CMV quantification values were 2330 IU/mL, 57.9 IU/mL on days 18 and 25, respectively followed by undetectable on day 33. Later on, he was found to have haemophagocytic lymphohistiocytosis. He was then treated with dexamethasone, rituximab and cytarabine. Thereafter, he was discharged on ganciclovir. Valganciclovir was also added. After cycle 2, he was hospitalised due to COVID-19. Eventually, he died [*cause of death not stated*].

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