A rare case of ganciclovir for Cytomegalovirus (CMV) Colitis in pregnancy

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Background

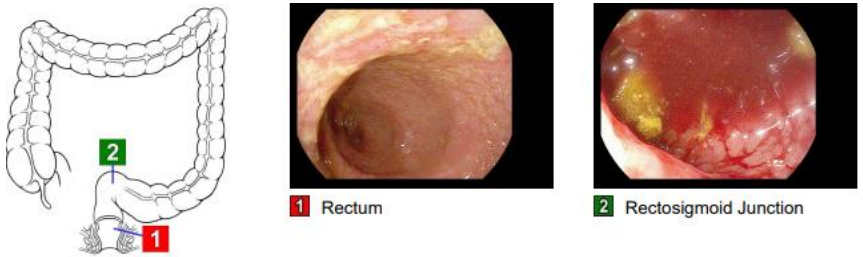
Cytomegalovirus (CMV) is the leading cause of congenital infection worldwide. Infection in the third trimester carries a 40-70% risk of vertical transmission from mother to fetus[1]. It can cause serious long-term neurological sequelae, being the leading cause of non-genetic congenital hearing loss[2]. To reduce the risk of congenital CMV, patients diagnosed with CMV in pregnancy can receive antiviral therapy.

Aims

This case aims to increase the real-world knowledge of Ganciclovir usage in the third trimester.

Case Presentation

A 44-year-old G4P3 presented at 28+5 gestation with a 5-week history of diarrhoea and 2 weeks of rectal bleeding. She was reviewed by the gastroenterology team who commenced her with antibiotics and mesalamine for possible Inflammatory bowel disease. Meanwhile investigations such as an autoimmune screen, haematinic screen and stool cultures were ordered. Though there was slight improvement in her symptoms , the decision was taken to arrange a flexible sigmoidoscopy which revealed diffuse moderate inflammation characteristic by erosions, erythema , loss of vascularity and shallow ulcerations found in the rectum.



Flexible sigmoidoscopy findings

Results

The biopsy from the sigmoidoscopy revealed severe active colitis with CMV positivity by immunohistochemistry. She was also found to be viremic at the time with CMV viral loading peaking at 910 copies/ml. Serology showed a positive IgG and negative IgM result for CMV. Going back to her booking bloods, it was confirmed the presence of CMV IgG antibodies suggesting past infection. In discussion with Infectious disease, it was thought that with high avidity index for IgG antibodies , there was likelihood of re-activation of CMV in context of new diagnosis of ulcerative colitis. The patient was started on intravenous valganciclovir.
Over the subsequent days the viral load was noted to increase as did the avidity. Infectious disease specialist made the decision to change the patient's intravenous valganciclovir therapy to intravenous ganciclovir. After 2 weeks a serum CMV PCR was negative, and the patient was stepped down to oral valganciclovir.

Discussion

Of all pregnancies with confirmed vertical transmission, 10% to 20% will have evidence of clinical infection at birth. This case had no antenatal ultrasound findings suggestive of CMV infection and the testing of the neonate was negative. Whilst the use of antivirals has reduced vertical transmission significantly, safety profiles are hard to elicit. Human Ganciclovir studies are currently underway despite potentially teratogenic results in rabbits[3].

References

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