Cytomegalovirus Retinitis complication from Anti-Cluster Differentiation 30 treatment for Refractory Hodgkin’s Lymphoma

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Abstract

Cluster Differentiation 30 (CD30) is a surface marker of the tumour cells in Hodgkin’s Lymphoma (HL). Brentuximab Vendotin (BV), a monoclonal antibody therapy has been developed to target CD30 as a treatment of relapsed/refractory HL. Recently, there have been few reports regarding cytomegalovirus (CMV) retinitis associated with BV. Here we present a rare case of CMV retinitis following treatment with BV. A 54 year old teacher, diagnosed with mixed cellularity (CD30 Positive) classical HL, was treated with standard treatment of ABVD (adriamycin, bleomycin, vinblastin, dacarbazine) but relapsed 6 months later. She was then salvaged with ICE (ifosfamide, carboplatin, etoposide) regime and prepared for autologous stem cell transplant (ASCT). She then underwent PET scan which showed active disease, hence it was decided to bridge her with cycles of BV prior to transplant. She was not screened for CMV prior to BV, neither was she on any prophylactic antiviral therapy. While on the second cycle of BV, she complained of blurred vision which rapidly progressed to blindness. Ophthalmic examination confirmed CMV retinitis, proven by detection of CMV PCR on vitreous fluid sampling. CMV retinitis is a common complication in advanced acquired immunodeficiency syndrome (AIDS) and allogenic hematopoietic stem cells transplantation (HSCT) recipients due to profound immunosuppression. Although this patient has been exposed to ABVD and ICE, these agents are not known to be associated with CMV reactivation. BV’s effect on CD30 causes impaired anti-CMV defence which may lead to CMV disease. 3 cases of CMV retinitis following BV in non-transplanted lymphoma patients have been reported recently. There should be more studies looking at incidence of CMV following BV therapy and the role of antiviral prophylaxis in these patients.

Keywords: Cytomegalovirus, retinitis, Brentuximab Vendotin, Hodgkin Lymphoma

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