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Adalimumab induced Epstein Barr virus related lymphoproliferative disorder.

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Adalimumab, a fully human chimeric tumor necrosis factor (TNF) inhibitor is used in the treatment of immune-mediated disorders such as psoriatic arthritis. We present a case of a 51 year old woman treated for psoriatic arthritis with methotrexate and infliximab for 12 years. In December 2016 Adalimumab replaced infliximab due to worsening symptoms. Three doses were administered 1 weeks apart. Following commencement of therapy the patient developed rapidly enlarging cervical lymph nodes. Excisional biopsy revealed EBV related polymorphic lymphoproliferative disorder (LPD). 18 F -FDG-PET/CT imaging demonstrated widespread hypermetabolic lymphadenopathy. Following the discontinuation of adalimumab, at 5 weeks there was almost complete resolution of this adenopathy. The course of this disease is most consistent with EBV related lymphoproliferative disorder (LPD) secondary to TNF alpha inhibition. LPDs encompass a diverse group of hematological malignancies that can either be acute or chronic in nature; either leukemic or lymphoid in morphology. Epstein Barr virus (EBV) is an enveloped herpesvirus with doubles stranded Deoxyribonucleic acid (DNA) infecting 90% of the world population. LPDs associated with EBV infection involve the virus providing the impetus for malignant transformation while immunosuppression hampers the immune system's ability to detect and clear these malignant cells. TNF alpha is an important cytokine in the innate immune response against EBV infection. The use of TNF alpha inhibitors therefore may lead to an increased risk of developing EBV related LPDs. Immune system modulation is the first line approach to LPD, and as in this case can induce tumor regression in 25%-50% of patients]. Spontaneous regression of LPD associated with methotrexate following discontinuation has been seen especially in EBV positive cases (about 40–50%). Regression after drug discontinuation seldom occurs in patients who developed the disorders following anti-TNF alpha antagonists as in this case.

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