**Herpes simplex encephalitis due to rituximab**

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Objective:

- to recognize and manage herpetic encephalitis in patients being treated with rituximab

A 70 y/o female presented with generalized weakness for one month. She was found to have autoimmune hemolytic anemia, C3 positive direct coombs hemolysis, splenomegaly, low grade B-cell lymphoproliferative disorder consistent with a splenic marginal zone lymphoma. She was started on prednisone 100 mg daily for two weeks followed by taper of 75 mg for one-week then 50 mg daily for anemia. She was re-admitted with fever and weakness of the quadriceps, therefore prednisone was tapered off and she was started on rituximab. She had oral thrush and stomatitis, which were treated with fluconazole and valacyclovir, respectively. She received rituximab 375 mg/m2 weekly for 3 weeks. Subsequently, she was admitted with lethargy, weakness, low grade fever and skin rash. Vitals signs and physical examination were unremarkable except for a diffuse erythematous rash. She was started on ceftriaxone, vancomycin and acyclovir. Labs showed no leukocytosis or growth in blood and urine cultures. CT and MRI brain indicated no acute pathology. Lumbar puncture was performed, which was clear, had 53 total nucleated cells/uL, 82% lymphocytes, protein 69 mg/dL, and glucose 80 mg/dL. CSF gram stain and cultures, fungal culture, cryptococcal antigen and VDRL were negative. Herpes simplex IgM was 1.07 and type I IgG was 8. Acyclovir was continued for encephalitis. Her abdominal CT scan showed splenomegaly but no lymphadenopathy, no progression of stage III marginal zone lymphoma. Therefore rituximab was discontinued and she was monitored by hematology/oncology as outpatient. Rituximab is associated with an increased incidence of viral infections in lymphoma patients. Rituximab in addition to its effect on B-cells may influence T-cell immunity predisposing to opportunistic infections. In 365 patients with hematological malignancies receiving rituximab, viral infections developed in 10%. HSV is rarely reported with rituximab; therefore further clinical studies are indicated to investigate rituximab association with HSV.