**CASE SUMMARY**

- 80-year-old female with a PMH of relapsed/refractory large B-cell lymphoma who presented with progression of lymphoma in CNS
- Initially treated with R-CHOP and achieved a complete metabolic response
- Noted to have relapsed disease 2 months following completion 1st line therapy
- Started on POLA-BR with plans for CART
- Post treatment PET scan showed a new area of brain metastatic disease
- Started prednisone 1mg/kg D3
- Started IVIG 1g/kg x 2 doses D5-6

**LEARNING POINTS**

- Thrombocytopenia is one of the biggest reasons for consulting hematology
- Distinguishing ITP is important to not delay care in those with severe thrombocytopenia and/or bleeding
- Oncology patients have many confounding factors resulting in thrombocytopenia
- Identifying precipitating factor is not always achieved
- Consider when platelet count is refractory to transfusions
- Monitor for improvement of the platelet count within 3-4 days after administration of steroids and IVIG

**INTRODUCTION**

- Obinutuzumab is a humanized monoclonal antibody targeting CD20 on B-lymphocytes
- MOA is mediated B-cell lysis through engagement of immune effector cells for antibody dependent cellular cytotoxicity and antibody dependent phagocytosis
- Obi is commonly used as savage treatment for relapsed lymphoma
- Thrombocytopenia is a known side effect from Obi
- Commonly induced from cytotoxic effect from medication
- The treatment depends on the cause of the platelet destruction
- Delay in management could result in further complications from transfusions reactions or spontaneous bleeding events

**DISCUSSION**

- Medications can induce platelet destructions by
  - Creating drug-dependent platelets (and/or megakaryocytes) antibodies
  - Creating antibodies against platelet factors or surface antigen
  - Resulting in reduced platelet lifespan due to clearance
- Obi can cause acute myelotoxicity or immune related destruction, commonly seen a few days after infusion
- Half-life is 28.4 days
- Grade 3-4 thrombocytopenia within the first 24 hours remains a rare occurrence with 5% of cases
- Usually treated by starting hematologic evaluation and supportive transfusion during this period.
- Severe ITP is treated with steroids along with IVIG
  - Important to recognize mechanism of destruction as this can minimize complications and delay in care
  - This case helps highlight close monitoring of platelet count in those receiving Obi to enable rapid intervention

**REFERENCES**

- Aug;17(8):1081-1093.