# Rare case of Plasmablastic lymphoma in a HIV negative, immunocompetent EBV positive patient

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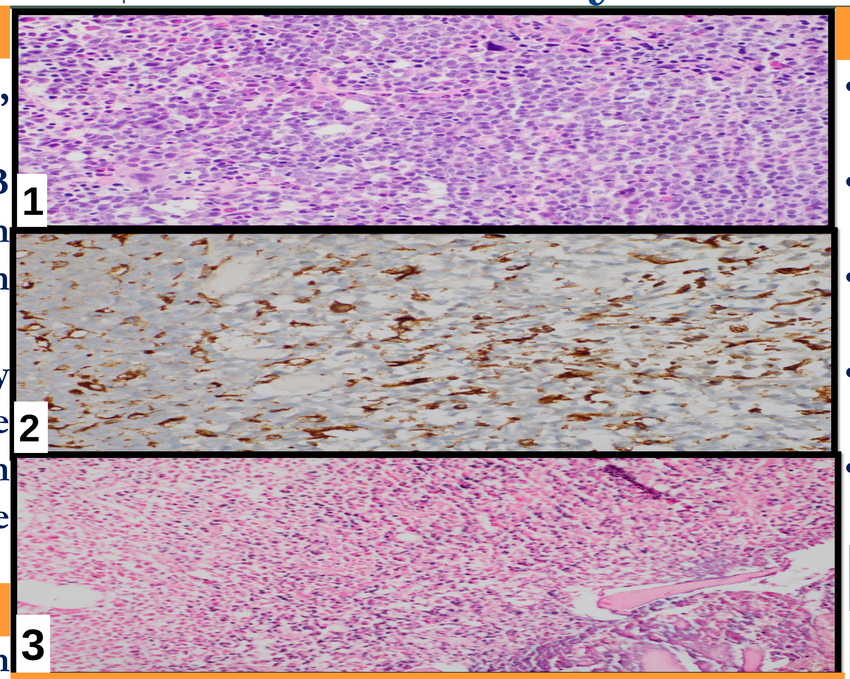
## INTRODUCTION

- Plasmablastic lymphoma (PBL) is a rare, aggressive neoplasm(<2%of all lymphomas)
- Best classified as a form of diffuse large B cell lymphoma, however based on immunohistochemical data, PBL is much more similar to Plasma cell myeloma. (PCM)
- PBL was initially diagnosed in the oral cavity of patients with HIV, however now more cases have been reported in immunocompromised and in EBV positive patients

## CASE PRESENTATION

- 61-year-old healthy female presented with complains 4 weeks of fevers, nausea, vomiting, epigastric pain, and 20 pounds of unintentional weight loss.
- Physical exam significant for epigastric tenderness, hepatomegaly and splenomegaly.
- Labs significant for pancytopenia, transaminitis and elevated bilirubin.
- HIV and Hepatitis C were negative. EBV was positive.
- CT A/P showed diffuse fatty infiltration of liver, grossly enlarged liver, mild upper abdominal and retroperitoneal adenopathy.
- Esophagogastroduodenoscopy was done and biopsy obtained.




## DIAGNOSIS

- Gastric body biopsy showed fundic type mucosa with infiltration of monomorphic large atypical cells with moderate amount of cytoplasm, eccentric nuclei and prominent nucleoli, consistent with high grade lymphoma.
- H &E stain showed classic starry-sky pattern due to numerous admixed macrophages that have ingested apoptotic tumor cells ( 1)
- Atypical cells were CD3 positive (>50%) and negative for CD20(>90% PBL cases) (2)
- Bone marrow biopsy showed 80-90% involvement of bone marrow.(3)

## DISCUSSION AND CONCLUSION

- Phenotype of lymphoid cells were consistent with PBL. (MUM +1, CD79+, EBER+,CD34)
- Chart below shows different lymphomas and markers(5)
- Histopathological features of PBL are frequently ambiguous making the diagnosis difficult.
- PBL is a very rare diagnosis, and hence there is no established standard to treat PBL.
- It has a very aggressive disease course comprising relapses and refractoriness to chemotherapy.

| Marker | Case | PBL | DLCBL | ALCL | BL | GIST | PC |
|---|---|---|---|---|---|---|---|
| CD45 | - | +/- | + | + | + | - | +/- |
| CD 20 | - | +/- | + | - | + | - | - |
| CD 79a | + | +/- | + | - | + | - | + |
| CD 138 | - | + | - | - | - | - | + |
| CD 3 | - | - | - | +/- | - | - | - |
| CD30 | - | - | +/- | + | - | - | - |
| CD10 | | +/- | +/- | - | + | - | - |
| MUM 1 | + | +/- | +/- | - | - | - | - |
| CD117 | - | - | - | - | - | + | - |

DLCBL-Diffuse large B-cell lymphoma, ALCL- Anaplastic large cell lymphoma, BL-Burkitt's lymphoma, PC- Plasmacytoma, GIST Gastrointestinal stromal tumor