Intravascular large B-cell lymphoma (IVL) is a variant of extranodal diffuse large B-cell lymphoma with the malignant cells essentially confined to small vessel lumina. Clinical signs are protean and the histology can be subtle, leading to a delayed diagnosis with increased mortality potential. We present two patients with IVL: (1) Presenting as acute cholecystitis and unexplained anemia and (2) As suspected CNS autoimmune vasculitis.

**Case 1:**
The patient is a 43 year old woman presenting with abdominal pain and anemia; a cholecystectomy was performed for suspected cholelithiasis. A grossly unremarkable acalculous gallbladder was received for routine processing. Wright-stained peripheral blood smears were obtained for anemia workup. Immunophenotypic analysis by flow cytometry was also performed on peripheral blood.

**Case 2:**
The patient is a 69 year old man presenting with episodic loss of consciousness, right lower extremity weakness, slurred speech, and personality changes. Imaging studies were suggestive of CNS vasculitis and a biopsy was performed. A frontal lobe biopsy was received for routine processing. H&E sections and a panel of immunohistochemical stain were obtained for both of cases.

**Pathologic Findings-Case One**

Fig 1A-F: Intravascular lymphoma of gallbladder. H&E section showed large atypical lymphoid cells within the vascular lumens (200X, 400X. 1A-B). Lymphoma cells were positive for CD20 (1C) (200X) and CD5 (200X, 1D). Lymphoma cell were negative for CD3 (200X, 1E) and TdT (200X, 1F).

**Pathologic Findings-Case Two**

Fig 2A-C: Intravascular lymphoma of the brain. H&E showed large atypical lymphoid cells within the vascular lumen (200X, 2A). The lymphoma cells were positive for CD20 (200X, 2B) and negative for CD3 (200X, 2C).

Highly variable clinical presentations plus subtle pathologic changes may contribute to a delayed diagnosis and poor outcome in IVL patients. In our two cases, the most characteristic findings are dilated small vessels with lymphoid cells. However, in our second patient, these changes were subtle, owing to the paucity of blood vessels in the biopsy. The presentations of ‘cholecystitis’ and ‘vasculitis’ were likely due to vascular obstruction by malignant cells. Significantly, IVL disseminated into the peripheral blood is rarely seen, but was present in our first patient.