

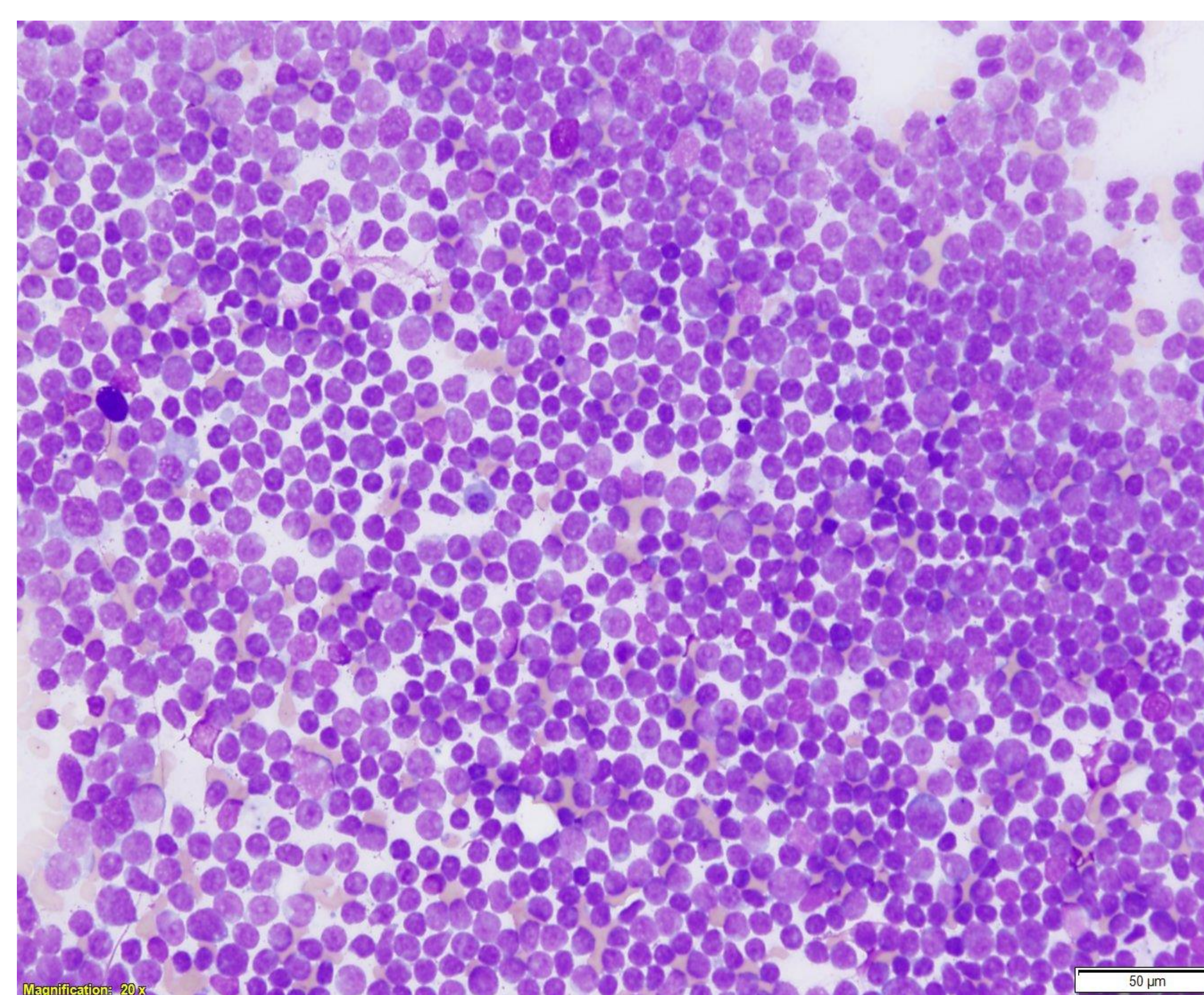
## Abstract

Acute Cholangitis is a biliary emergency that requires prompt diagnosis & appropriate management in a timely manner. Guidelines and best practices dictate that if the Charcot's triad and Tokyo guidelines are indicating moderate to severe cholangitis, ERCP should be performed urgently. In certain situations, however, clinical decision making is not as straight forward. We present a case in which a number of confounding factors caused hesitancy in making that decision.

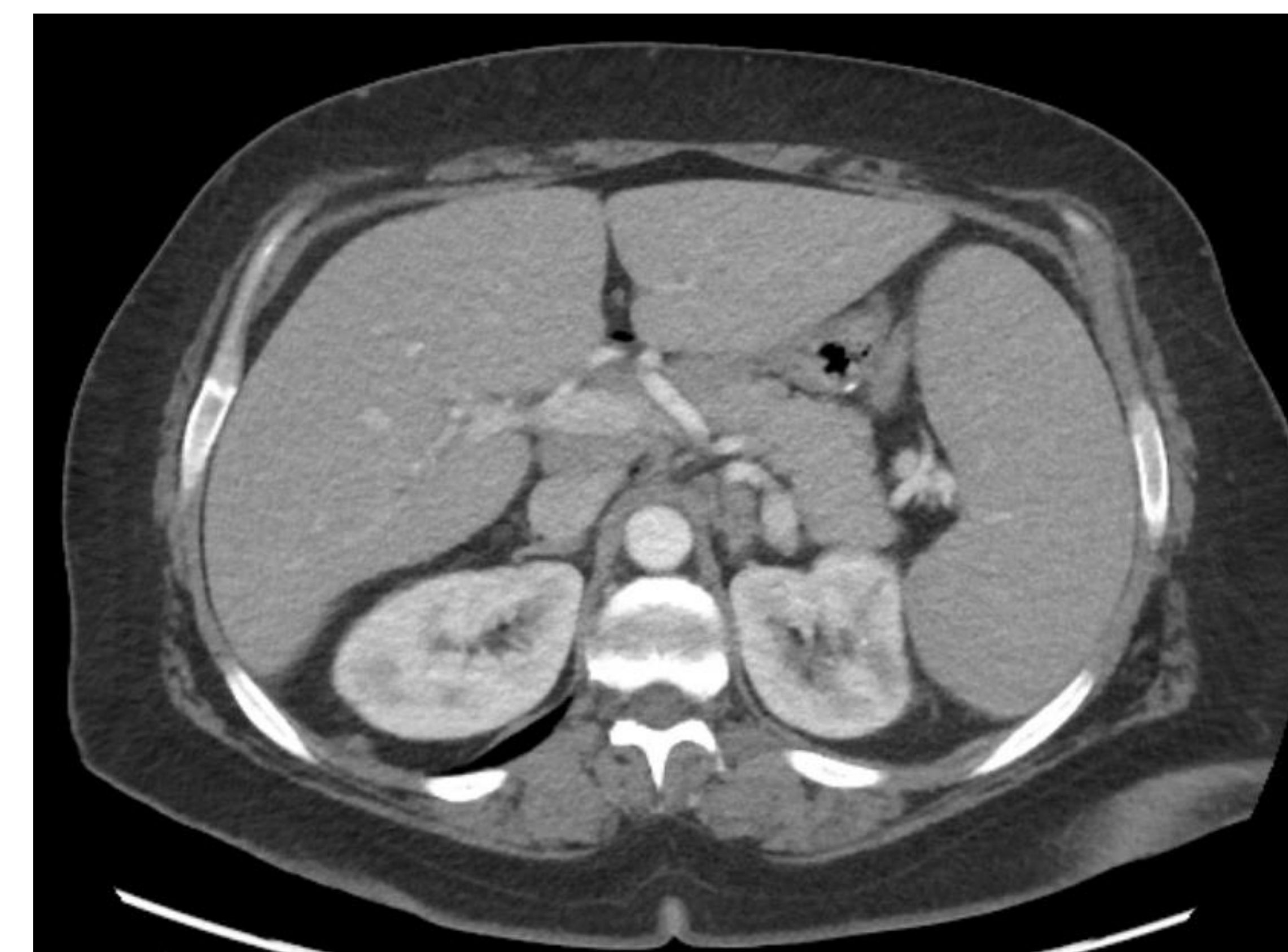
## The Case

38-year female with PMH of Crohn's colitis on adalimumab presented with 2 weeks of progressively worsening upper abdominal pain associated with decreased appetite, nausea, vomiting, change in urine color and chills but no fevers. She completed a course of Augmentin 20 days back for a URI. She was also recovering from alcohol use disorder. She was afebrile and hemodynamically stable. On exam, had marked scleral icterus, palpable liver, spleen with upper abdominal tenderness. Lab were remarkable for lymphocytic leukocytosis, thrombocytopenia and Alk phos 316 U/L, T and DBilirubin-7/6.3 mg/dL, AST/ALT-72/131 U/L, respectively. CT abdomen pelvis with contrast showed no intra-or extrahepatic biliary ductal dilation and moderate hepatosplenomegaly.

Ultrasound liver with Doppler confirmed above. GI team was called to evaluate for possible ERCP for cholangitis. Later Peripheral smear which was initially ordered to evaluate low platelets, showed blasts cells following which flow cytometry and bone marrow biopsy confirmed B-lymphoblastic leukemia with BCR-ABL1 fusion 97% of cellularity by differential count. Liver enzymes normalized after initiation of R-HyperCVAD.



**Figure 1.- Liver Biopsy showing** Leukemia cells noted invading the liver .



**Figure 2.** Hepatosplenomegaly noted no intra or extra hepatic biliary dilation.

## Discussion

Intrahepatic cholestasis is a known phenomenon in ALL, however initial presentation with intrahepatic cholestasis is rare except for few reported cases in pediatric population. Leukemic infiltration causing intrahepatic cholestasis causes an important diagnostic dilemma and establishing correct diagnosis has important implications especially since the treatment of choice, ERCP, for the alternate diagnosis is not only invasive but the risk of adverse events is high. Keeping this in mind hematologic malignancies should always be considered as a differential in patients with constitutional symptoms and hepatosplenomegaly. The diagnosis can be confirmed by immunohistochemical stains showing immature B cell lineage from a Liver biopsy; however, it is not necessary as in above case. Systemic chemotherapy is the main treatment for B-ALL/LBL.

## References

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- Acute Myeloid Leukemia Presenting as Obstructive Jaundice Caused by Granulocytic Sarcoma Joo Young Lee\*