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Case Study

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PELIOSIS HEPATIS IN A RENAL TRANSPLANTED PATIENT ON IMMUNOSUPPRESIVE TREATMENT

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ABSTRACT

Peliosis hepatis is a rare vascular disorder that is histologically defined by the blood-filled cystic cavities scattered throughout the liver parenchyma and is found to be associated with solid organ transplantation and malignancies. Here we present to you a case of renal transplanted patient taking immunosuppressive treatment presenting with deranged liver enzymes and was diagnosed to have peliosis hepatis on liver biopsy.

KEYWORDS: Peliosis Hepatis, Renal Transplant, liver biopsy.

INTRODUCTION

A rare vascular disorder that is histologically defined by the blood-filled cystic cavities scattered throughout the liver parenchyma is termed as peliosis hepatis.[1-3] These lesions are mostly irregularly shaped and in many cases are incompletely lined with endothelium.[4] Peliosis hepatis has been found to be associated with multiple factors such as liver and non-liver solid organ transplantation, malignancies,[1] human immunodeficiency virus (HIV) infection,[5] advanced tuberculosis,[6] bartonella infection,[6] and certain drugs such as anabolic steroids[7] and oral contraceptives.[8] Peliosis hepatis has a varied presentation ranging from minimal asymptomatic lesions to massive lesions that may often manifest as cholestasis, hepatic failure, or spontaneous rupture requiring liver transplantation[9-12] Peliosis hepatis is very difficult to diagnose as the differential diagnosis of subacute liver masses is complex, and benign and malignant/pre-malignant lesions share overlapping imaging characteristics.

We present to you the case of peliosis hepatis in a Renal transplant patient, also taking immmunosuppresion and steroids.

CASE REPORT

Thirty five years old male, with history of renal transplant 1 year back, currently on maintainence immunosuppression Prednisolone 7.5mg /day and Mycophenolate Mofetil 500mg twice daily. He got admitted with complaints of anorexia and decreased appetite for twenty days. On examination, he is neither pale nor icteric and was vitally stable with systemic examination been unremarkable. On laboratory investigation, he was found to have deranged liver function tests with increased Total Bilirubin of 3.11mg/dl with Direct Bilirubin of 0.96 mg/dl, Alkaline Phosphatase of 224 U/L, Aspartate Transaminase of 117 U/L, Alanine Transaminase of 75 U/L and Gamma Glutamyl Transferase of 104 U/L. One month prior to this admission, his LFTs were normal. Based on increased indirect Biluribin, reticulocyte count was done which was 3% followed by coomb's test which was negative. His viral and autoimmune serology was unremarkable. Ultrasound abdomen was also done which showed diffuse fatty infiltration of liver. Subsequently, he then underwent liver parenchymal biopsy showing patchy sinusoidal dilatation and marked congestion along with focal thinning of hepatocyte plates. Mild Ballooning of hepatocytes was noted. Focal lobular inflammation is also noted. Features were suggestive of Peliosis Hepatis(**Figure 1**).

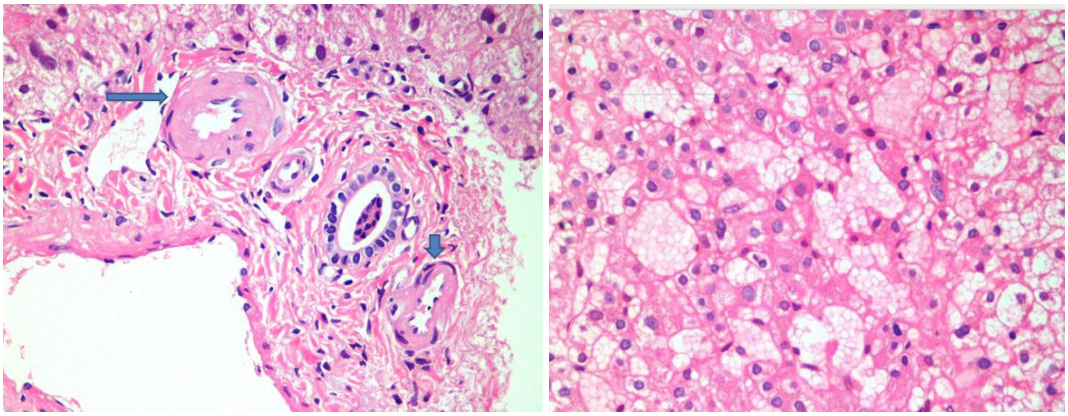

Figure 1A: Liver parenchymal biopsy showing massively dilated sinusoidal spaces. 1B: Arrow showing obstruction of a sinusoid with fibrous connective tissue.

DISCUSSION

Multiple tissues and organs are involved by peliosis which include bone marrow, lymph nodes, lungs, parathyroid gland, kidneys, spleen, and liver.[13]

In peliosis hepatis, gross inspection reveals blood-filled cavities randomly distributed throughout the liver parenchyma also termed as "Swiss cheese" appearance. There is no distortion of major vascular structure and has been classified in two types termed as parenchymal and phlebectatic peliosis that are distinguished on the basis of histology.[14,15] Irregular, blood-filled and dilated sinusoidal spaces with occasional cells displaying necrosis of the adjacent tissue is termed as Parenchymal peliosis while in Phlebectatic peliosis there are regular spherical cavities that are lined by endothelium. The pathogenesis of this disease is unclear with several models have been suggested to understand the etiology of hepatocellular necrosis and the sinusoidal endothelium injury in these patients. Zak et al proposed that focal hepatocyte necrosis distorted the reticulum network, leading to hemorrhage.[11] Endothelial cell injury has also shown to have an impact on pathogenesis of PH. There are certain etiologies that can be linked to Peliosis hepatis. Lately, PH has been considered to be linked to HIV and immunosuppressive drugs post kidney transplantation.[5]

In our present case, the patient had renal transplant 1 year back and was commenced on steroids and immunosuppressive medications immediately post-transplant. These immunosuppressive medications might be the etiology behind this disease.

CONCLUSION

So peliosis hepatis is a rare vascular disorder that can occur in renal transplant receipients taking immunosuppressive treatment.

Conflict of interest: None.

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