INTRODUCTION & AIM OF THE WORK

Budd-Chiari Syndrome (BCS) is an uncommon, often fatal disorder, resulting from an obstructed hepatic venous outflow tract. The obstructive lesion is situated in the main hepatic veins (HVs), in the inferior vena cava (IVC), or in both. The nature, location & extension of the obstruction can be displayed on the diagnostic imaging techniques. [(1)]

A wide variety of disorders may cause BCS; either predisposing to thrombosis (Primary causes = 75%) or through mechanical obstruction of the veins (Secondary causes = 25%). Primary myeloproliferative disorders & inherited prothrombotic tendencies are the most common association. [(2)]

The obstruction of the venous vasculature of the liver (from the intrahepatic venules to the right atrium), causing increased PV& hepatic sinusoidal pressure, hepatic congestion, microvascular ischemia, hepatocellular injury, portal hypertension & liver insufficiency results. [(3)]

BCS is presented with the classical triad of; abdominal pain, ascites & hepatomegaly. The syndrome can be; subacute, acute, chronic or fulminant [(4)]

The imaging modalities used are ultrasound, color doppler, duplex (which provides anatomic information about vessels patency & collateral vessels formation), cross sectional techniques (with or without contrast enhanced) & angiographic modalities. The key imaging findings are; occlusion of the HVs, IVC or both, caudate lobe enlargement, inhomogeneous liver enhancement, presence of intrahepatic collateral vessels & hypervascular nodules. Awareness of these findings is important for early diagnosis & appropriate treatment**.** [(5)]

Management of BCS includes; medical treatment, interventional radiological techniques (balloon dilatation, HV stenting & transjugular intrahepatic portosystemic shunting (TIPS) & surgical procedures (shunt operations & liver transplantation). [6]

TIPS procedure in which a canula inserted into HV from a jugular approach, then needle advanced through the liver parenchyma to enter PV, then parenchymal tract is dilated with an angioplasty balloon, then stent deployed within the tract, connecting PV to HV (with desirable portosystemic gradient to be below 12 -15 mm Hg). [7]

TIPS has a much lower morbidity & mortality (compared to surgical shunts), & the treatment of choice for complication of portal hypertension (as variceal bleeding & refractory ascites), but its poor long term patency (which require a mandatory surveillance programme) is still the main disadvantage. The stent-grafts seem extremely promising in preventing shunt malfunction & enhancing the life of the shunt. [7]

Aim of The Work

Is to discuss the role of diagnostic & interventional radiological techniques in Budd Chiari Syndrome.