12) Portal Hypertension – Dr. Muhammad Omar

- Is a condition characterized by prolonged elevation of portal venous Pr.
- (Normal 2- 5 mmHg), patient developing Cl. Feature & complication of portal hypertension usually have portal venous Pr. > 12 mmHg.

Etiology & Pathogenesis

- Increased vascular resist is usually the main factor producing P.H. irrespective to it is cause & consequently the causes of P.H. are classified according to site of obstruction.
- Extra hepatic portal vein obst. is frequently the cause of portal hypertension in childhood & adolescence, while cirrhosis cause 90% or more of portal hypertension in adult in most countries Schistosomiasis is the most common cause of P.H in the world.
- Increased portal vascular resistance lead to a gradual reduction in the flow to the liver & simultaneously to the develop of collateral vessel allowing portal blood to bypass the liver & enter the systemic circulation directly, collateral vessel formation is wide spread but occur particularly in the G.I.T. sp. The Os. Stomach, & rectum & anterior abdominal wall.
- Isolated gastric varices without Os. Varices can occur in PH due to splenic vein thrombosis.

Clinical Features

- Result from portal venous congest & from collateral vessel format.
- Splenomegaly is a cardinal finding & a diagnose of portal hypertension is unlikely when splenomegaly cannot be shown clinically, or by U.S.
- The spleen is rarely enlarged > than 5 cm below LCM.
- Hypersplenism is common & thrombocytopenia is the most common feature. Lincopenia occur occasionally.
- Collateral vessel may be visible on anterior abdominal wall radiate from umbilicus → caput medusa, the most imp. Collateral vessels occur in Os. & Stomach.
- Fetor hepaticus result from Porto systemic shunting of blood which allows mercaptans to pass directly to lung.

Investigations

- Radiology (Bar- swallow) & endoscopy → show Varices, which establish presence of P.H.
- **U.S** very helpful in showing splenomegaly, collateral vessel & s.t the cause such as liver disease or portal vein thrombosis.
- **Portal venography:** show site & often cause of portal venous obstruct & performed prior to surgical therapy.

Complications

1. Variceal bleeding; Osph. Gastric, other.
2. Congestive gastropathy.
3. Hypersplenism.
4. Ascites.
5. Renal failure.
6. Hepatic encephalopathy.

Variceal bleeding:

Occur from Os. Varices within 3- 5 cm of Os- gastric junction or from gastric varices. Bleeding usually sever & recurrent. Most cirrhotic pt with Varices does not hemorrhage. Rebleeding occur in 80-100% of pt.

Management

1. Restore the circulation with blood & plasma because shocks reduce liver Bl. Flow & cause significant deteriorates of liver function.
2. The cause of bleeding from varices should be established as 20% of patient with varices are bleeding from other lesion especially acute gastric erosion.
3. Reduction of portal venous pr.by;
    a. Vasopressin. b. Terlipressin. c. Somatostatin.
4. Local measure.
    a. Sclerotherapy/Banding. b. Propranolol. c. Porto- systemic shunt surgery. d. Transjugular intrahepatic Porto- systemic stent shunt. The incidence of encephalopathy after TIPSS is 10-40 %.

- **Sclerotherapy** is one of the imp. Initial treatment & is under take if possible at the time of diagnostic endoscopy, it stops variceal bleeding in 80% of patient & can be repeated if bleeding recur.
- Also sclerotherapy is the most widely used method for preventing recurrent Osph. Variceal bleeding using Sclerosing agent like absolute alcohol repeated every 1- 2 wks.
- S.E/ abdominal pain, fever, dysphagia, Os. Perforation, Os. Stricture.

TIPSS and shunt surgery

- TIPSS, described below, can be used for acute bleeding not responding to sclerotherapy or banding. Emergency Porto systemic shunt surgery has a mortality of 50% or more and is now virtually never used for treating active variceal bleeding.
- Prevention of recurrent bleeding
- Recurrent bleeding is the rule rather than the exception in patients who have previously bled from esophageal Varices, and treatment to prevent this is needed.

Band ligation

- This is a technique in which Varices are sucked into an endoscope accessory, allowing them to be occluded with a tight rubber band. The occluded varix subsequently sloughs with variceal obliteration. Banding is repeated every 1-2 weeks until the Varices are obliterated. Regular follow-up endoscopy is required to identify and treat any recurrence of varices. The technique is generally more effective than sclerotherapy, has fewer side-effects and is now the treatment of choice. Prophylactic acid suppression with proton pump inhibitors may reduce the risk of bleeding and erosion…