

An SOS for SOS: A Case of Orthotopic Liver transplantation in the Management of Hepatic Sinusoidal Obstruction Syndrome

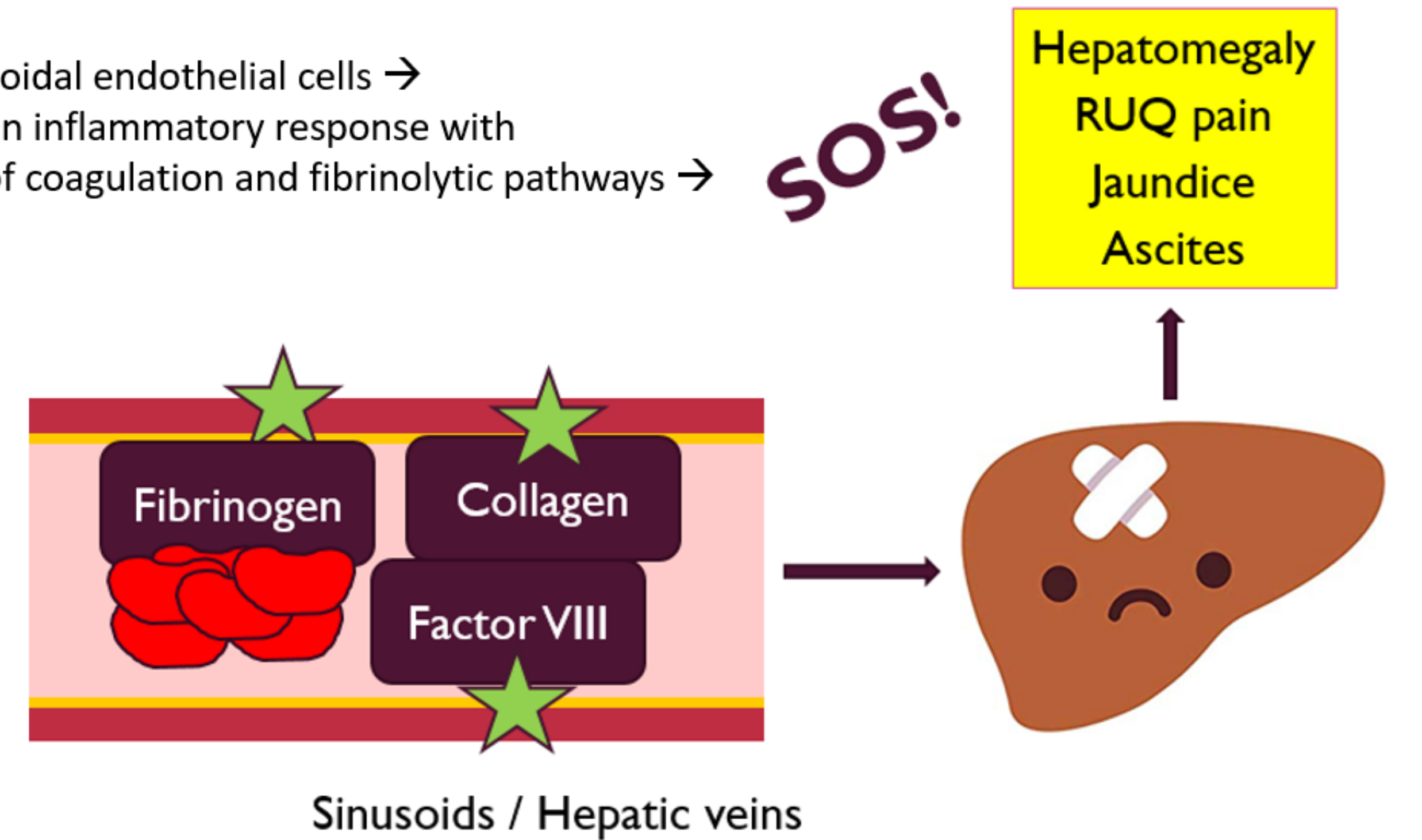
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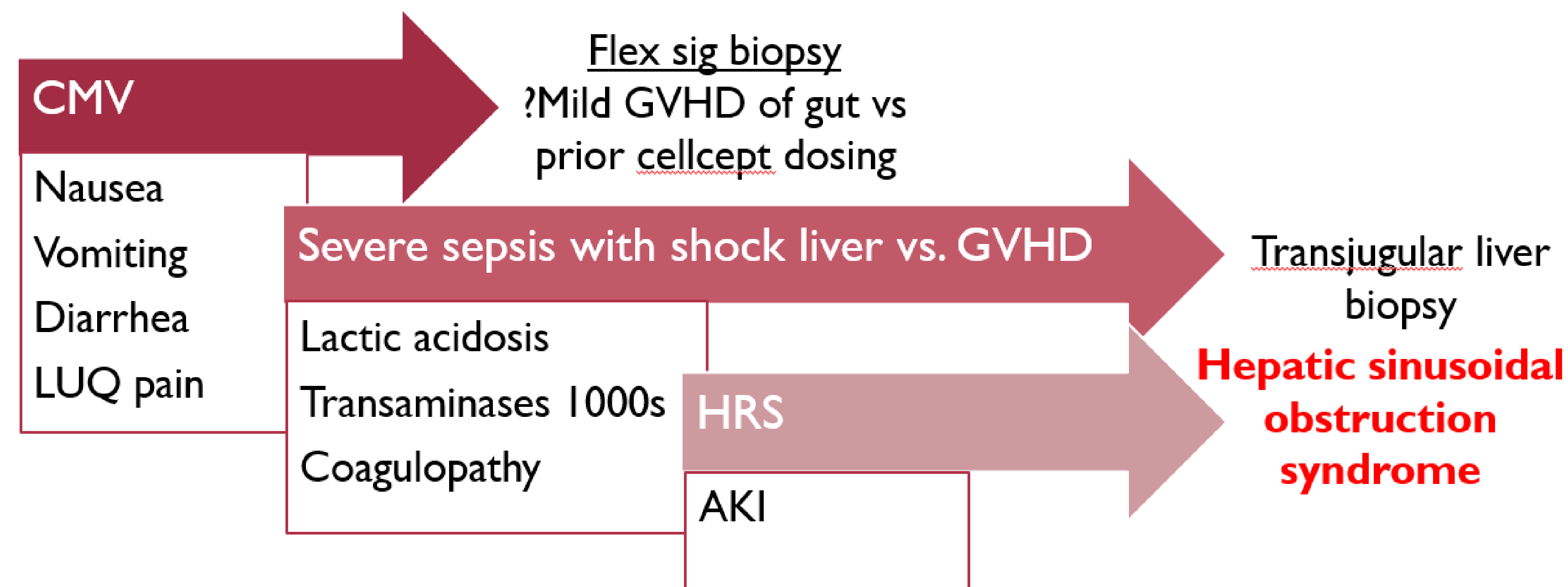
Hepatic Sinusoidal Obstructive Syndrome (SOS)

- Also known as veno-occlusive disease
- Typically occurs after hematopoietic cell transplantation
- Risk factors: aggressive myeloablative regimens
- Treatment: defibrotide and supportive management
- Transjugular intrahepatic portosystemic shunt placement and liver transplant are rarely indicated for patients

- 1) Injury to sinusoidal endothelial cells →
- 2) activation of an inflammatory response with involvement of coagulation and fibrinolytic pathways →
- 3) liver necrosis.



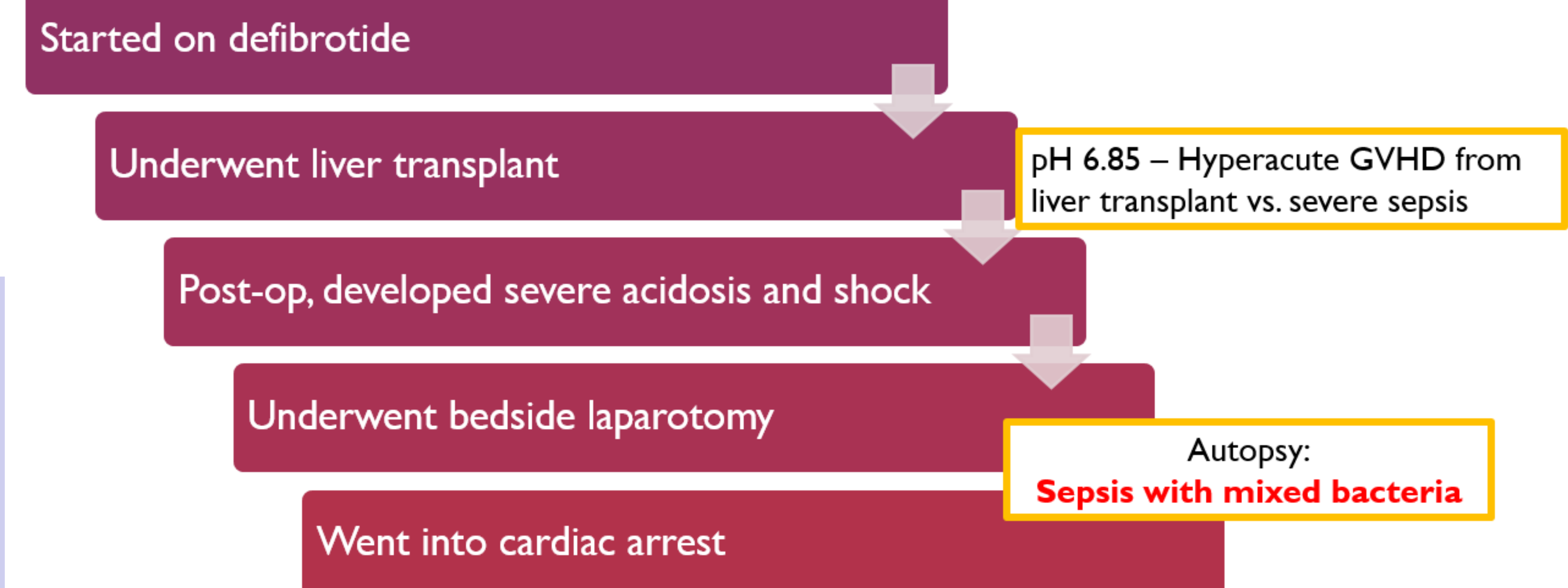
46-year-old male with acute myeloid leukemia s/p allogenic stem cell transplant presented with abdominal pain, diarrhea, nausea, and vomiting



Hospitalization was also complicated by hypoxic respiratory failure requiring intubation for airway protection secondary to encephalopathy and renal failure.

Transjugular biopsy showing:

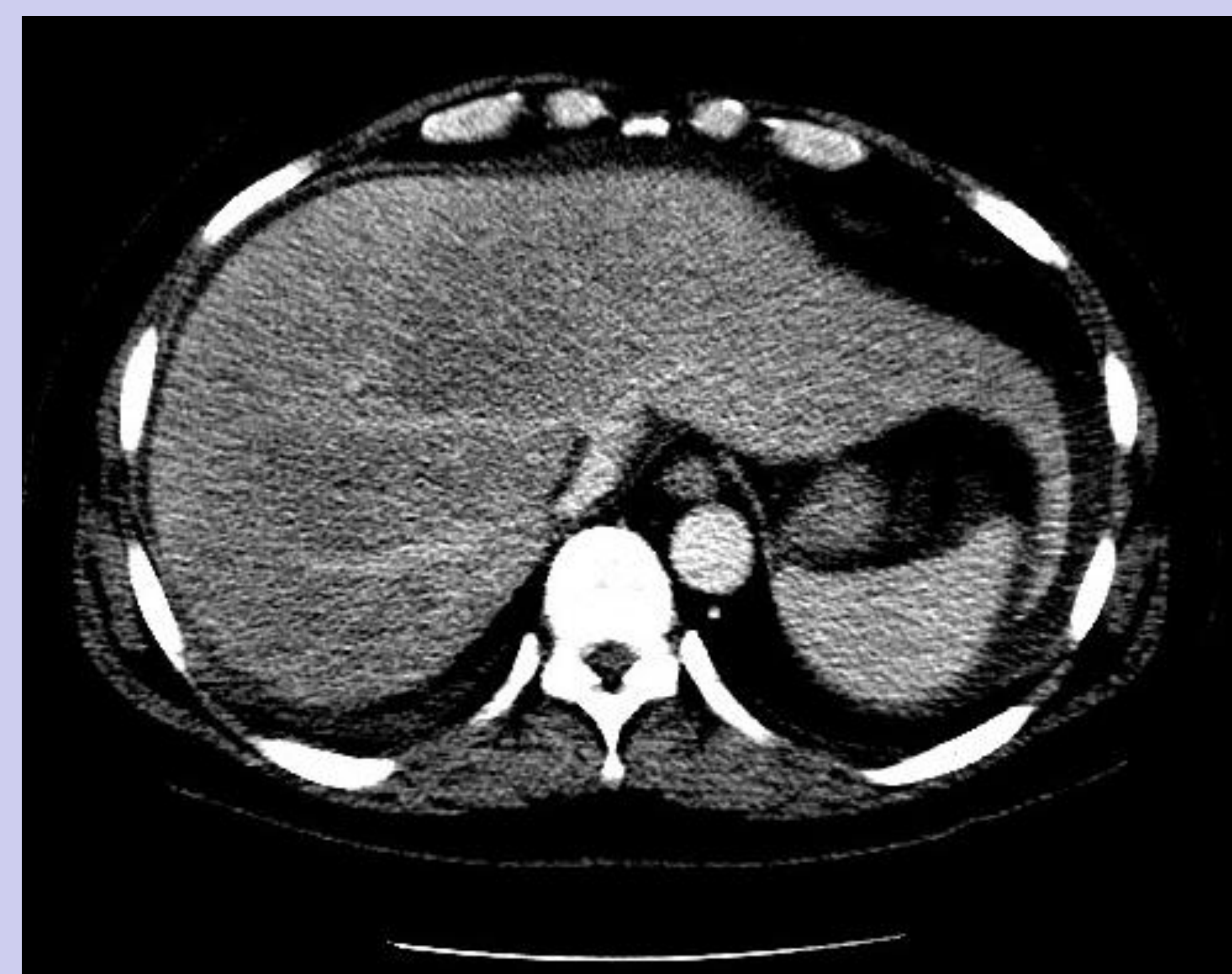
- peliosis hepatitis
 - prominent centrilobular sinusoidal dilation
 - focal fibrous obliteration of small venules
- consistent with SOS



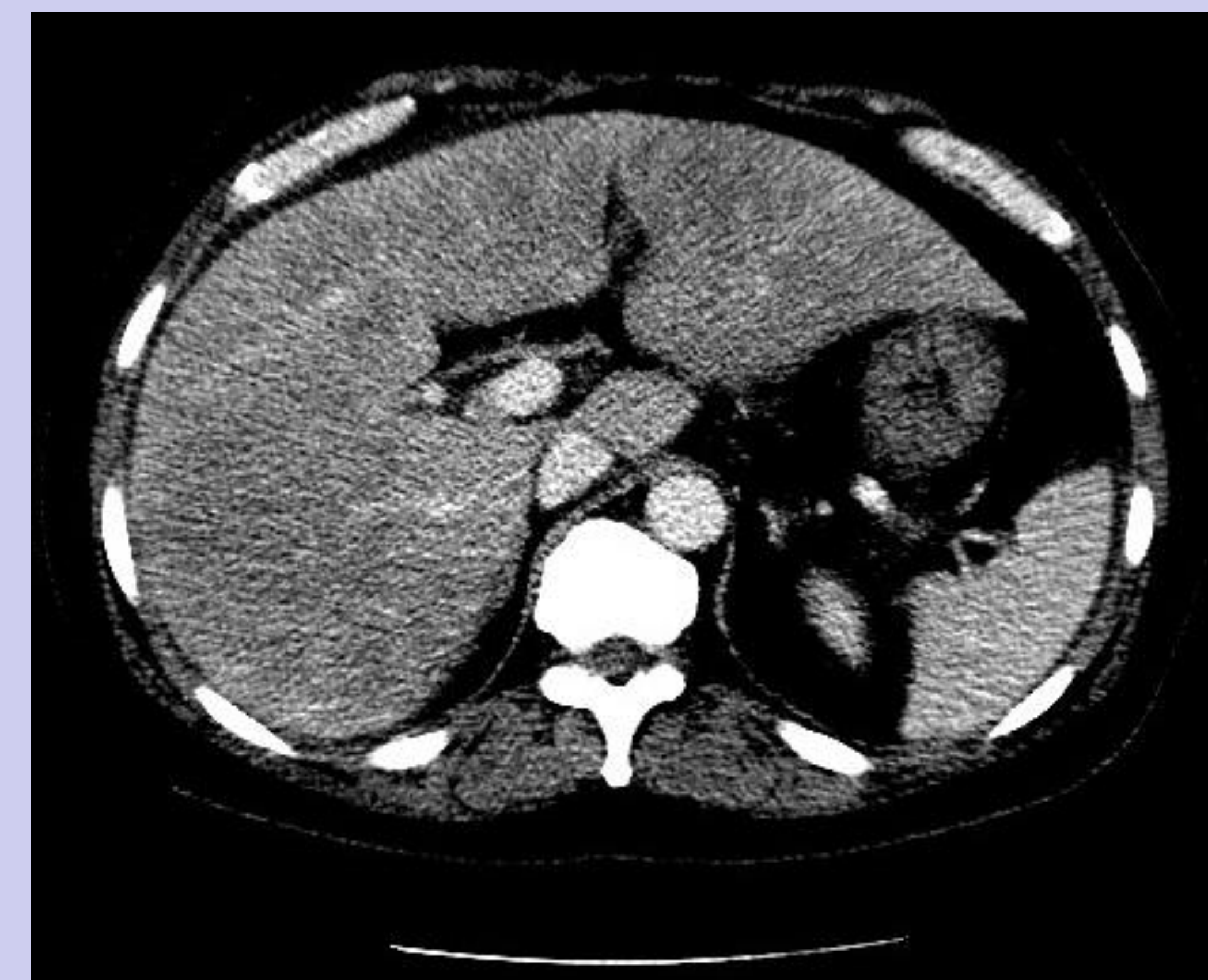
Imaging represents veno-occlusive disease as a complication of stem cell transplant



A) CT Chest showing soft tissue density anterior to and abutting the aorta and pulmonary artery in anterior mediastinum



B) CT Abdomen and Pelvis showing diffusely heterogeneous liver



C) CT Abdomen and Pelvis showing diminutive middle and left hepatic vein.

Conclusion

- We describe a case of a patient with acute myeloid leukemia status post allogenic stem cell transplant who presented with abdominal pain and was found to have fulminant liver failure from SOS who underwent liver transplantation in order to add to the medical literature and help inform future care teams
- Liver transplant is rarely done in attempts to stabilize patients with SOS. Patient passed away despite maximal medical therapies and an orthotopic liver transplantation
- Prognosis for patients with severe SOS is poor
- Further research is warranted to assess whether OLT should be considered in patients who present with severe SOS