AMSER Case of the Month
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42 year-old male with thrombocytopenia

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Patient Presentation

**HPI:** 42 year-male presented initially as a referral for incidental thrombocytopenia found on routine lab. He denies excess bleeding or bruising, family history of blood disorders. He does drink 2-3 standard alcoholic beverages a week. No additional pertinent negatives or positives.

**PMH:** N/A

**Meds:** None

**Allergies:** NKDA

**Vitals:** T 36.8°C; BP 160/72; HR 55; RR; SpO2 100%

**ROS:** Negative

**Physical Exam:** Unremarkable
Pertinent Labs

Basic Metabolic Panel: Within normal limits

CBC:
  Plt – 142 (low)
  Hgb – 12.7 (low)

LFT:
  AST – 40 (mildly elevated)
  ALT – 34 (mildly elevated)

COAG:
  INR – 1
  PT 13.9 → 16.8 (high)
What Imaging Should We Order?
This imaging modality was ordered after abdomen US evaluating splenomegaly revealed liver lesion.
Findings (unlabeled)
Doppler ultrasound abdomen revealed a large heterogenous lesion on the right liver lobe with peripheral regions of blood flow.
Findings (unlabeled)
Findings (labeled)

Large right hepatic lobe mass with homogenous T2-hyperintensity.

Spleen with splenomegaly and similar MRI characteristic lesion not well-selected in this image.
Same right hepatic mass in coronal-view.
Findings (unlabeled)
T1-post contrast demonstrates peripheral nodular enhancement.
Findings (unlabeled)
T1-post contrast (delayed) demonstrates **progressive centripetal enhancement**.
Post operative findings (unlabeled)
Post operative findings (labeled)

Status post-right hepatectomy with postsurgical cavity containing fluid and air.
Final Dx:
Giant hepatic hemangioma associated with thrombocytopenia and coagulopathy
Giant hepatic hemangioma

**Etiology:** Hepatic hemangioma is a benign liver tumor with a collection of blood vessels connected to hepatic arterial circulation. The cause is likely congenital with a potential genetic component. They are typically found in the periphery of the liver.

**Clinical Presentation:** Usually asymptomatic but can present with upper right abdominal pain, nausea, vomiting, early satiety. Most cases are found incidentally during imaging for other conditions.

**Differential Diagnosis:** Focal hepatic steatosis (on ultrasound), Hepatic cyst (on noncontrast MRI), Hemangioendothelioma
Giant hepatic hemangioma (cont.)

**Diagnosis:** Findings on ultrasound, contrast-enhanced cross sectional imaging CT/MRI, Scintigraphy

**Treatment:** May not need treatment if there are no abnormal signs or symptoms. However, hepatectomy may be considered if there is a risk of rupture or thrombocytopenia.
Outcome & Significance

The outcome of this case was surgical consult for surgical resection and right hemihepatectomy that resolved the patient’s thrombocytopenia.

The significance of this case is in demonstrating potential complications of hepatic hemangioma. Initial workup of thrombocytopenia includes a variety of laboratory data, focusing on hematology labs. Based on symptoms, ultrasound is a great first diagnostic tool. Hemangioma does not usually demonstrate internal vascularity on ultrasound secondary to low internal blood flow. MRI is often diagnostic.

Another entity to consider for this case is Kasabach-Merritt Syndrome, which is recurrent thrombocytopenia and coagulopathy associated with multiple cutaneous/systemic hemangiomas.
References:


Grizzard, J. MD, Hemangioma. Statdx.com