History
12 year old with tuberous sclerosis and hypertension.

Diagnosis
Hepatic Angiomyolipoma

Discussion
Angiomyolipomas are benign mesenchymal neoplasms composed of an admixture of blood vessels, smooth muscle, and variable amounts of adipose tissue. Angiomyolipomas are associated with the genes TSC1 and TSC2 that may act as tumor suppressor genes. Renal angiomyolipomas, occur in up to 80% of patients with tuberous sclerosis and larger ones are prone to spontaneous hemorrhage.

On ultrasound, these lesions are well defined rounded homogeneous hyperechoic masses easily separated from the normal hepatic parenchyma. Unenhanced CT shows these lesions as well-defined hypovascular lesions, whereas on contrast-enhanced CT the attenuation is typically heterogeneous because of the variable composition of the lesions. Hepatic angiomyolipomas are more common in tuberous sclerosis patients with diffuse renal involvement. Additionally, females with tuberous sclerosis are more likely to have hepatic involvement. Hepatic lesions in a patient with tuberous sclerosis is not a cause for concern. Lesions larger than 4 cm in diameter may benefit from surveillance.

Findings
US-Multiple hyperechoic lesions of varying sizes in the kidneys and liver.

Reference
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