

Infantile Hepatic Hemangiomas - A Rare But Signature Diagnosis

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Abstract: *Hemangioendotheliomas are benign lesions which are recently classified as hemangiomas. They are rare but diagnosis cannot be missed on radiological investigations due to their signature appearance. This lesion is more common in infants of age less than one year and these lesions may completely resolve with time. The dangerous complications include consumption coagulopathy and heart failure.*

Keywords: hemangioendothelioma, radiology, hemangioma

1. Clinical History

A 11 months old female infant is brought with complaints of abdominal distension, loss of appetite, on examination positive findings are bilateral pedal edema and pallor.

The girl was first born, normal delivery, fully vaccinated, history of one admission for pneumonia at age of one.

The patient is taken up for diagnostic workup for abdominal distension on ultrasound and then contrast CT abdomen.

2. Imaging Findings

On USG hepatomegaly noted with well-defined hypoechoic varying sized lesions noted in both lobes of liver which shows color filling on doppler.

On CT enlarged liver with multiple varying sized hypodense lesions with peripheral puddling in arterial phase with progressive centripetal enhancement on venous and portal phase which became iso-dense in delayed phase noted in both lobes of liver.

Our patient is kept on follow-up as most of the times the lesion resolves by itself.

3. Discussion

These are benign tumors which are previously known as hepatic hemangioendotheliomas, but now recently they are classified as hemangiomas by the International Society for the Study of Vascular Anomalies (ISSVA).

The affected patients are generally in neonatal age group because these lesions are in proliferative phase in first 6 months which gradually enters later on to regression and involution phase where the lesions may completely self resolve.

Depending upon the extent of parenchyma involved they are classified into:

1. Focal
2. Multifocal
3. Diffuse

Patients may present with enlarged liver (hepatomegaly), abdominal distension. If the lesions are severe involving entire parenchyma there might be arterio-venous shunting, in this case the patient may present with symptoms of cardiac failure, hence close cardiologic follow-ups must be done till the lesions resolve. Rarely the lesions may lead to consumptive coagulopathy resulting in thrombocytopenia and hemolytic anemia. Diffuse lesions may also lead to severe hypothyroidism due to massive overproduction of type III iodothyronine deiodinase⁽¹⁾

They have a variable sonographic appearance and can be either hypoechoic or hyperechoic or may display mixed echogenicity with prominent vascular channels. Colour Doppler sonographic evaluation will show increased flow. There is typical peripheral enhancement with gradual filling-in. Another characteristic finding is a reduction in the aortic calibre distal to the level of the coeliac axis because of the important vascular distribution toward the liver. The same process will cause coeliac trunk and hepatic artery hypertrophy.

Though they are benign, if diffuse other complications can be serious and cause death, hence serial radiological investigations should be performed. Treatment protocol includes propranolol if cardiac failure sets in, serial radiological investigations, if the haemangiomas are large embolization is tried⁽²⁾

4. Case

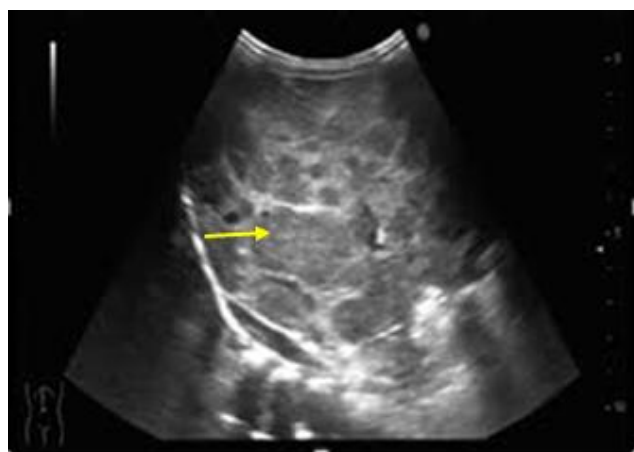


Figure 1: Hypoechoic Lesions on USG

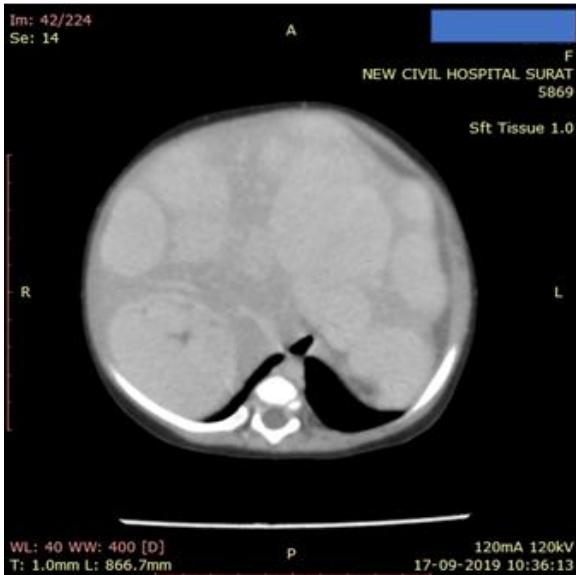


Figure 2: Plain Scan

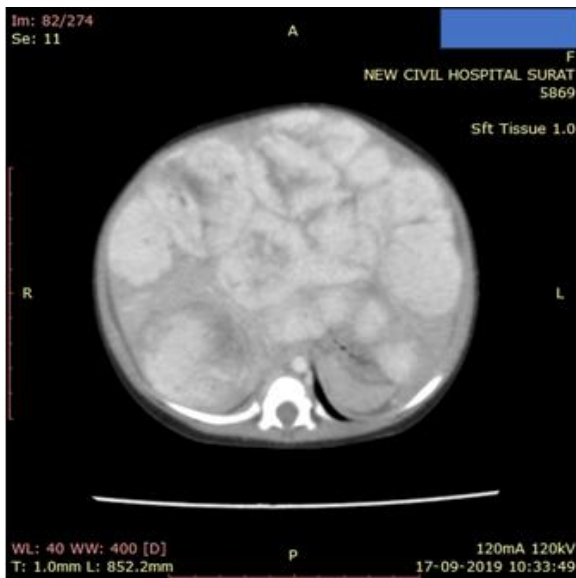


Figure 3: Arterial Phase

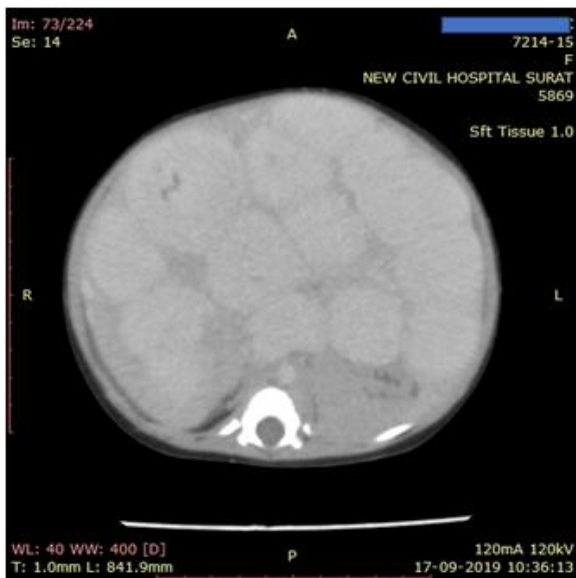


Figure 4: Venous Phase

References

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