QJM: An International Journal of Medicine, 2020, 1–1

doi: 10.1093/qjmed/hcz320 Advance Access Publication Date: 18 December 2019 Clinical picture

CLINICAL PICTURE Honeycomb liver in Wilson's disease

An 8-year-old male with jaundice for 3 years and acute liver failure presently showed hepatomegaly, icterus and Kayser-Fleischer ring. Total serum bilirubin (32.7 mg/dl) and direct serum bilirubin (16.55 mg/dl) levels were increased. Serum ceruloplasmin level was low (13 mg/dl) and urine copper level was increased (9505 µg/dl). Non-enhanced computed tomography showed multiple innumerable hyperdense nodules and honeycomb appearance of liver on gray scale and color-coded images (Figure 1A and B), closely resembling a honeycomb. There was no discernible enhancement of these nodules on contrast enhanced images. These characteristic clinical, laboratory and imaging features led to diagnosis of Wilson's disease (WD), a rare autosomal-recessive disorder of copper metabolism. It occurs due to deficient biliary copper excretion with copper accumulation in the liver, brain, cornea and kidney.¹⁻³ Classical non-contrast CT findings of cirrhotic liver in WD are multiple hyperdense regenerative nodules surrounded by hypodense septa and honeycomb appearance.² This patient underwent liver transplantation.

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Conflict of interest. None declared.

References

- Akhan O, Akpinar E, Karcaaltincaba M, Haliloglu M, Akata D, Karaosmanoglu AD, *et al.* Imaging findings of liver involvement of Wilson's disease. *Eur J Radiol* 2009; 69:147–55.
- 2.Li W, Zhao X, Zhan Q, Chai W, Mahyoub R, Yang Y, et al. Unique CT imaging findings of liver in Wilson's disease. Abdom Imaging 2011; **36**:69–73.
- 3. Tokuhisa Y, Shimizu M, Yachie A. Honeycomb appearance of the liver in Wilson's disease. *Clin Gastroenterol Hepatol* 2012; **10**:A25.

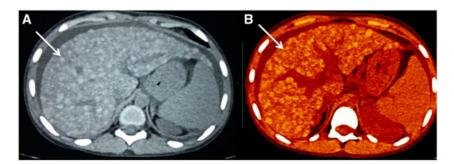


Figure 1. Non-enhanced axial CT gray scale image (A) shows multiple innumerable hyperdense nodules and honeycomb appearance of liver. Color-coded image (B) shows multiple bright nodules and honeycomb appearance of liver.

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