

## Bile Cast Nephropathy Associated with Acute Hepatitis A

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Acute kidney injury frequently develops in advanced liver diseases, such as liver cirrhosis and acute hepatic failure. This acute renal dysfunction usually results from decreased renal perfusion caused by a hypovolemic condition. Severe jaundice may also contribute to the acute kidney injury caused by bile acid or bilirubin.<sup>1</sup> Here, I present an interesting case of bile cast nephropathy complicated by acute hepatitis A.

A 35-year-old male visited the emergency department with symptoms of nausea, abdominal discomfort, and oliguria. These symptoms and signs developed abruptly several days prior to visit, so he took a digestive medicine, however, these symptoms aggravated. He had no signs of diabetes or chronic hepatitis. His skin color was yellowish on physical examination. His vital signs were stable on arrival. However, serum total bilirubin, direct bilirubin, and creatinine were 10.29 mg/dL, 7.95 mg/dL, and 14.30 mg/dL respectively. Immunoglobulin M, the antibody for acute hepatitis A, showed positive results, however, anti-neutrophil cytoplasmic antibodies and complements were all within normal range. His uremic symptoms aggravated despite aggressive fluid therapy. His general condition improved partially after hemodialysis, however, several clinical signs still remained during the next four weeks. He underwent a renal biopsy. The pathologic result showed that the renal tubular lumens frequently con-

tained dark pigment casts with foreign body reactions and calcification, and interstitium focally exhibited mononuclear cell infiltration and fibrosis (Fig. 1).

Bile casts can result in acute kidney injury of patients with severe jaundice and hepatic failure. Further, a direct bilirubin toxicity for renal tubules may also contribute to this renal injury. This case suggests that recovery of acute tubular necrosis can be delayed by the presence the tubular bile cast.

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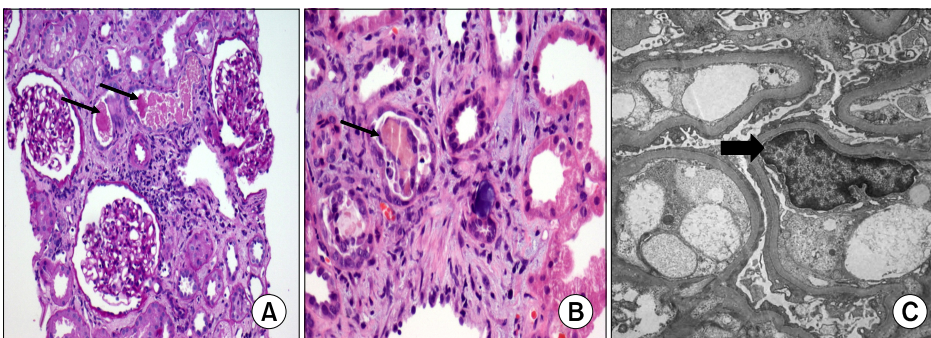
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### CONFLICT OF INTEREST STATEMENT

None declared.

### REFERENCE

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**FIG. 1.** These pathologic sections demonstrates bile casts in the renal tubules (thin black arrows), and a lot of lymphocytes around tubules and interstitium are infiltrated (A: H-E stain, x100, B: H-E stain, x400). This electron microscopic picture shows bile cast in the renal tubule (a thick black arrow) (C).

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