



Infection-Related Glomerulonephritis Complicating *Entamoeba histolytica* Abscess of the Liver

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To the Editor: An 8-y-old boy presented with fever and pain in right hypochondrium for 1 wk. There was no diarrhea, dysentery, or vomiting. He weighed 23 kg (-1.26 z); height 137 cm (+0.86 z). He had tender hepatomegaly (liver-span 14 cm). Investigations revealed hemoglobin 12.1 g/dL, leukocytosis (TLC- 19570/mm³; neutrophils 84%), platelet count 2.45 × 10⁹/L, serum creatinine 0.41 mg/dL, albumin 3.63 g/dL, high CRP (9.6 mg/dL) and procalcitonin (26.8 ng/mL), with normal liver-function tests. Abdominal ultrasound revealed multiple hepatic hyperechoic areas, largest 4.6 × 6.6 × 5.9 cm. A pigtail catheter in the liver abscess drained anchovy-sauce pus that was positive for *Entamoeba histolytica* by PCR. Pus and blood cultures were sterile. IgG *Entamoeba histolytica* antibodies were positive [48.5 NTU (normal <9 NTU)]. Stool and pus examination showed no trophozoites or cysts. Intravenous metronidazole therapy was initiated. Twelve days later, he developed oliguria with worsening periorbital, pedal, and scrotal edema, ascites and pleural effusions; and stage 2-hypertension (128/96 mm Hg). Urinalysis showed 418 RBC/HPF with 1+proteinuria. Serum C3 was low (63.17 mg/dL). Serum creatinine was normal (0.23 mg/dL). He was diagnosed as infection-related glomerulonephritis (IRGN). Edema and hypertension resolved with fluid/ salt restriction and furosemide administration. The liver abscesses resolved with metronidazole.

Diloxanide was prescribed. Serum C3 normalised at 6 wk (146 mg/dL).

IRGN can complicate bacterial, viral and parasitic infections. Nevertheless, only 2 reports of amoebiasis and glomerulonephritis exist, which is intriguing [1, 2]. These include a 55-y-old man from Indonesia [1], and a 62-y-old woman following trip to Yemen [3]; who had favourable outcomes.

Immune-complex related glomerular injury, triggered by lectin property of 170 kD protein of *Entamoeba histolytica* might activate complement cascade, due to shared sequence-identity with complement-components and CD59 [3, 4].

There are no previous pediatric reports of IRGN complicating amoebic liver abscess; and this report attempts to create awareness regarding this complication.

Declarations

Conflict of Interest None.

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