Letter: Amebic Liver Abscess with Superinfection Presenting with Acute Intestinal Obstruction and Leukemoid Reaction

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A 22-year-old male with a history of chronic alcohol abuse presented with abdominal pain, bilious vomiting, and abdominal distension for 2 days. He had been ill for 15 days with loose stools and fever. On clinical examination, the patient had abdominal distension with absent bowel sounds. His abdominal X-ray showed dilated small bowel loops with multiple air fluid levels (►**Fig. 1A**). A complete hemogram suggested leukocytosis with 82,000 total leucocyte count with a neutrophilic (70%) predominance. He was admitted with a clinical suspicion of acute intestinal obstruction. He underwent computed tomography of the abdomen which showed a left lobe ruptured liver abscess (►**Fig. 1B**) of size 5 cm × 4 cm × 4 cm with dilated proximal and mid jejunal loops with a smooth transition at distal jejunal and ileal junction and intra-abdominal collection (►**Fig. 1C**). The patient was started on broad-spectrum antibiotics (injection piperacillin/tazobactam and injection metronidazole) for treatment of the abscess. He underwent an ultrasound-guided pigtail catheter insertion into the left paracolic gutter. The patient's condition improved with the same treatment with the resolution of fever and intestinal obstruction. The pus drained from the abscess was positive for *Entamoeba histolytica* polymerase chain reaction. The patient's condition again deteriorated after 6 days of in-hospital stay with the patient developing shock. A repeat ultrasound of the abdomen was done, which showed persistence of pus collection in the pelvic cavity into which a second pigtail catheter was inserted. Antibiotics were upgraded to injection meropenem and injection teicoplanin. The pus aspirated from the pelvic cavity showed growth of *Escherichia coli* sensitive to meropenem. The patient responded to the above therapy with a resolution of shock. He was discharged with both the pigtail catheters in situ which were removed once drainage stopped. Metronidazole was given for a total of 14 days. The therapy was shifted to oral faropenem for a total therapy of 4 weeks. An ultrasound at 4 weeks showed significant resolution of abscess with two small lesions of 1 to 2 cm with an organized appearance. The patient remains well on follow-up.

Amebic liver abscess is an important gastroenterological emergency that may present with fever, abdominal pain, and tenderness. The therapy is usually with nitroimidazole antibiotics (metronidazole or tinidazole) and drainage in certain conditions like (impending) rupture, left lobe, or multiple abscesses.[1] Although we used metronidazole, tinidazole has demonstrated more clinical efficacy and may be better tolerated.[2] We report this case for two reasons—one is the unusual occurrence of leukemoid reaction, which improved with treatment and the intestinal obstruction which precipitated the clinical presentation. We believe the obstruction was due to the pelvic collection due to the ruptured liver abscess. There are only a few prior reports of intestinal obstruction in the setting of liver abscess requiring surgery or percutaneous drainage.[3,4] To conclude, liver abscess can present with complications that may confuse the clinical presentation.

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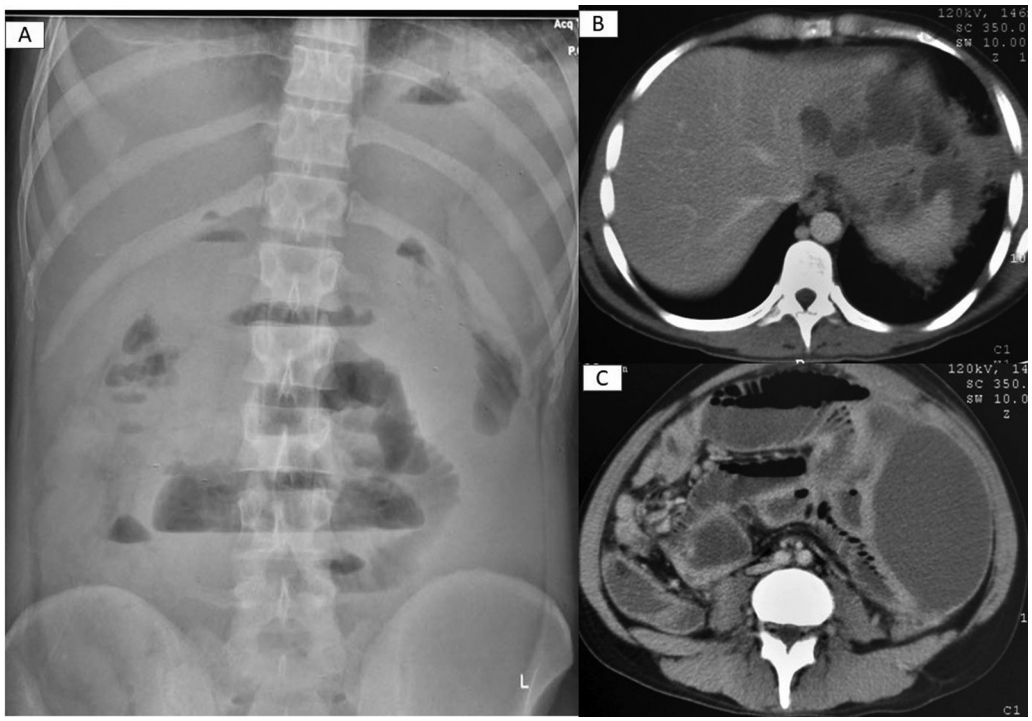

Fig. 1 (**A**) Abdominal X-ray (AXR) showing air fluid levels. (**B**) Computed tomography (CT) showing left lobe abscess with evidence of rupture. (**C**) CT showing intra-abdominal collection in relation to small bowel loops which are distended.

Informed Consent
Written informed consent for publication was obtained from the patient.

Ethical Statement
Not applicable.

Authors' Contributions
All authors were involved in care of the patient and reviewing and approving the article. V.D. wrote the initial draft, performed literature review and V.S., A.J., R.K., H.S., A.K.S., V.S., and U.D. made critical revisions.

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Conflict of Interest
None declared.

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References
1 Wadhera S, Arora N, Dhibar DB. Review: modern management of liver abscess. J Gastrointest Infect 2022;12(02):86–93
2 Pandey S, Gupta GK, Wanjari SJ, Nijhawan S. Comparative study of tinidazole versus metronidazole in treatment of amebic liver abscess: a randomized control trial. Indian J Gastroenterol 2018;37(03):196–201
3 Sudarshan P, Sinha A, Sreekar H, Arunchandra B. A case of ruptured liver abscess manifesting with intestinal obstruction. Arch Med Health Sci 2014;2:223–224
4 Rusman J. A liver abscess presenting as bowel obstruction and perforation. BMJ Case Rep 2013;2013:bcr2013009455

