

## CASE IMAGE

# Incisional hernia by liver cysts

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**Abstract**

Autosomal dominant polycystic kidney disease (ADPKD) is the most commonly inherited kidney disease and is associated with cystic manifestation in the liver. Patients with ADPKD are at higher risk for hernias, here we present an image of an incisional hernia full of multiple liver cysts.

**KEYWORDS**

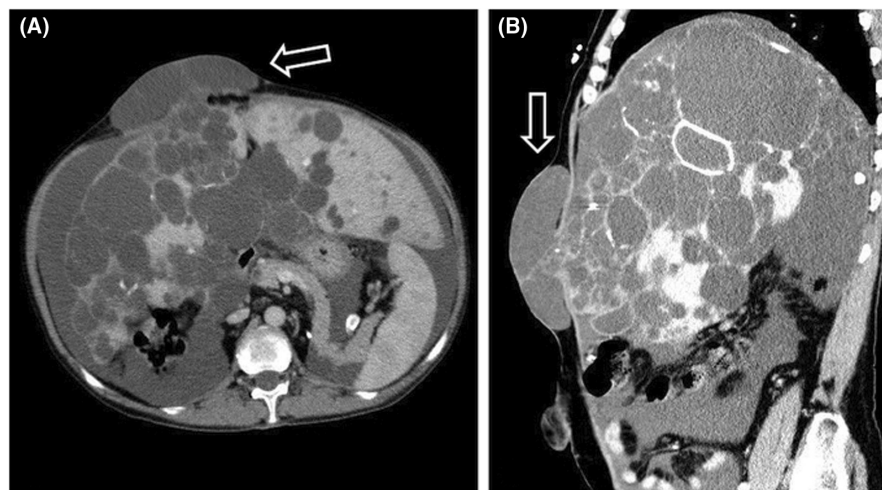
abdominal hernia, autosomal dominant polycystic kidney disease, hernia, incisional hernia, liver cysts

A 49-year-old man with autosomal dominant polycystic kidney disease (ADPKD), was enlisted in 2015 for kidney transplantation and underwent native kidneys nephrectomy in order to avoid potential negative consequences on the outcome of the kidney graft. Unfortunately, the transplantation was postponed due to the occasional finding of clear cell renal carcinoma from the histological examination of the surgical sample. The patient is currently enlisted for a combined liver and kidney transplantation and is undergoing weekly large volume paracentesis and dialysis sessions. As for the standard procedure of patients' assessment for kidney–liver transplantation, the patient underwent a contrast-enhanced computed tomography (CT) of the abdomen which showed an incisional hernia of the anterior abdominal wall ([Figure 1](#)).

Autosomal dominant polycystic kidney disease is the most commonly inherited kidney disease and is associated with cystic manifestation in other organs such as the liver and the pancreas. The cyst burden, determined by the number and volume of cysts, increase with age, with an average 0.9%–3.2% increase in liver volume per year.<sup>1</sup> Patients with ADPKD are at higher risk for hernias, especially umbilical and inguinal hernias, given the increased intra-abdominal pressure from the cysts burden. In particular, 45% of patients with ADPKD-related end-stage renal disease may develop abdominal hernias if compared to patients with other etiology of end-stage renal failure.<sup>2</sup> To date, there is only one previous report of a single liver cyst umbilical hernia.<sup>3</sup> However, this is the first report of multiple liver cysts incisional hernia.

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**FIGURE 1** Axial (A) and sagittal (B) CT images showed an incisional hernia of the anterior abdominal wall. Through the narrow neck, there is herniation of multiple liver cysts with irregular septa (arrows) forming a subcutaneous mass of 14 × 14 × 4 cm. Of notice, the right liver almost completely substituted by multiple cysts with irregular septa and calcification. The patient presented also an omental umbilical hernia.

### AUTHOR CONTRIBUTIONS

Mauro Giuffrè, Martina Budel, Paola Martingano, and Lory Saveria Crocè discovered the radiological finding; Paola Martingano performed CT scan reconstruction; Mauro Giuffrè, Martina Budel, Paola Martingano, and Lory Saveria Crocè drafted the manuscript; Mauro Giuffrè, Martina Budel, Paola Martingano, and Lory Saveria Crocè approved the final version of the manuscript.

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### CONFLICT OF INTEREST

The authors declare no conflict of interest.

### DATA AVAILABILITY STATEMENT

Not applicable.

### CONSENT

Written informed consent was obtained from the patient to publish this report in accordance with the journal's patient consent policy.

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