## **Photoclinic**



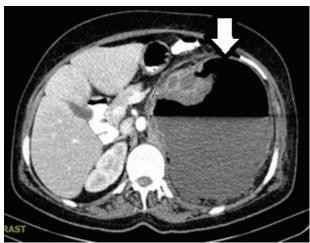


Figure 1. Abdominal imaging of the patient. A) Upright abdominal x-ray shows air-fluid level on the left side of the abdomen (black arrow). B) CT scan shows a large left gas filling mass with air fluid level (white arrow).

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A 30-year-old woman, mentally handicapped, was brought to the emergency department because of fever and abdominal mass since a month ago. Her family detected abdominal pain and constipation since 2 weeks ago. Her past medical and family histories were insignificant. On physical examination, she appeared ill and febrile. A round huge non-mobile mass measuring approximately

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7×8 cm was found on the left side of her abdomen.

Her vital signs were: HR: 124 BP: 125/65 RR: 21 OT: 38.9 SPO<sub>2</sub>: 92%.

An upright abdominal X-ray was obtained (Figure 1A). It showed a large gas forming mass with air-fluid level. The patient underwent abdominopelvic computed tomography (CT) scan (Figure 1B).

What is your diagnosis? See the next page for diagnosi

Renal abscess

Untreated intra-abdominal abscess has a high mortality rate, close to 80–90%. There are case reports of liver, spleen and renal abscesses and CT scan appears to be the most efficient method for accurate diagnosis.2

The incidence of intrarenal and perirenal infections ranges from 1 to 10 cases per 10,000 hospital admissions and it affects men and women equally.3 Most renal abscesses are caused by gramnegative germs and the most common etiology is ascending infection associated with urologic abnormality, obstruction or calculi. In such cases, the patient may have experienced previous episodes of kidney infection and be chronically pyelonephritic and scarred.4

In most cases with small abscesses (smaller than 5 cm in size), non-invasive interventions including percutaneous drainage and intravenous (IV) antibiotics are the management of choice. Open surgical intervention is performed in complicated and extensive renal abscesses (usually larger than 5 cm).<sup>5,6</sup>

The abdominal X-ray of the patient showed a large gas forming mass with air-fluid level (Panel A) and her CT scan revealed a huge left intrarenal abscess with extension to perinephric fossa (Panel B). The patient was admitted and IV antibiotics were

started for her. The day after her admission, open abdominal surgery was performed because of the large size of renal abscess. Abscess drainage culture revealed *E-coli*. Intravenous broad spectrum antibiotic treatment (Ampi-Sulbactam) was continued and then followed by oral antibiotics for 4-6 weeks. She had no complications on follow-up visits during the 6 weeks following surgery.

## References

- Ariel IM, Kazarian KK. Diagnosis and Treatment of Abdominal Abscesses. Baltimore: Williams & Wilkins; 1971
- Korobkin M, Callen PW, Filly RA, Hoffer PB, Shimshak RR, Kressel HY. Comparison of computed tomography, ultrasonography and gallium-67 scanning in the evaluation of suspected abdominal abscess. Radiology.1978; 129(1): 89 - 93.
- Dembry LM, Andriole VT. Renal and perirenal abscesses. *Infect Dis* Clin North Am. 1997; 11(3): 663 - 680.
- UpToDate-Mar 29, 2016
- Best CD, Terris MK, Tacker JR, Reese JH. Clinical and radiological findings in patients with gas forming renal abscess treated conservatively. J Urol. 1999; 162(4):1273 – 1276.
- Siegel JF, Smith A, Moldwin R. Minimally invasive treatment of renal abscess. J Urol. 1996; 155(1): 52 – 55.