

Dear Reviewers,

Thanks for your reading and suggestions on the manuscript of 61313. My answers of the questions are listed as follows:

The answers to Reviewer #1's comments:

1. Was a rent in the parenchyma demonstrated?

This patient took a computed tomography (CT) examination and proved that there were no urinary stones, tumors, trauma and other factors in the parenchyma.

2. Was leak of contrast demonstrated in the CT?

- 1) This patient underwent a contrast-enhanced CT scan, which showed the left renal capsule had a crescent-shaped, low-density shadow. The venous phase of the image showed low-density liquid dark areas of the left renal capsule and the CT value without enhancement was 53 HU. However the arterial phase of CT scan of the image showed no enhancement of the hematoma and nearly the same as that in venous phase.

- 2) The contrast agent which we used in the contrast-enhanced CT scan was Iodohydril (CT value 100 HU nearly), which is far from the CT value without enhancement (CT value 53 HU).

As these two points, we don't consider contrast agent leakage existed of the patient. Supplement of the problem was made in the manuscript.

3. How can we differentiate this from spontaneous retroperitoneal hemorrhage ?

- 1) Retroperitoneal hematoma usually presents as abdominal pain, bloating, nausea, vomiting, which is similar with spontaneous rupture of the kidney. So we may be confused by them. However, the etiological factors of retroperitoneal hemorrhage can be seen in tumors, trauma, and vascular diseases usually [25,26]. The spontaneous rupture of the kidney often occurs in obstruction, vascular factors, infections, and tumors as we put forward at Phase 1.

- 2) Since we often be confused by them, we usually disguise them by imaging. Abdominal CT is the most common examination which is fast and exact for us to diagnose them.

4. What was the color / content of the aspirate?

The appearance of the aspirate was hemorrhagic, thick, and brown, indicating a gram-negative bacterial infection at first.

5. How much did the pig tail drain?

After the pigtail catheter was inserted into the hematoma, 150 ml of fluid was drained out of it. There was nearly no drainage on the next day. During these days, the patient's blood pressure and hemoglobin did not change significantly when compared with the first day.

6. With such a large collection she did not have any pain or tenderness , how can the author explain this?

The symptoms of our patient were not typical, and we think that the reason for these atypical symptoms was that the patient had adapted to the feeling of discomfort, namely, the renal pain became less severe because the hemorrhage was chronic, lasting for a long time, and the patient gradually adapted to it.

7. Investigation with regards to RBS and sugars should be mentioned

The blood glucose of the patient was 6.0 mmol/L at the initial visit which considered as the RBS. Moreover, the blood glucose and glycosylated hemoglobin of the patient were all in normal limits whether it was fast testing or took two hours later after meal. As a result, we don't consider patients suffered from diabetes or impaired fasting blood glucose.

8. This can occur in case of obstruction due to papillary necrosis also, so discussion should bring this point out.

Papillary necrosis is a disease which is hard to diagnose and known to be associated with sickle cell hemoglobinopathies and a wide range of etiologies, it may also lead to pressure exceed of renal pelvis. Supplement of this point have been made in the discussion.

9. What is the length of follow that we have?

Two months later from the patient left the hospital, abdominal CT showed that the hematoma was absorbed, and the drainage tube was removed. Abdominal CT findings were normal after 4 months. There was no recurrence in ultrasonography after three months later from the last CT test.

10. Do we have a repeat CT after the hematoma has subsided to say that there is no tumor?

The patient returned for a CT scan, which showed that the hematoma had decreased and that there was no tumor three days later after she took the drainage. And the ultrasonography proved hematoma had decreased and that there was no tumor before she left the hospital.

The answers to Reviewer #2's comments:

1. The author needs to introduce the complete information of the patient at the beginning, such as whether the patient has an underlying disease (diabetes or hypertension).

The patient underwent hysterectomy 2 decades ago and did not have chronic diseases, such as hypertension, diabetes, or cardiovascular disease. Supplement of this point were added into the history of present illness.

2. The author needs to explain the drug resistance, source of the isolated *Klebsiella pneumoniae*. And the dose and time of ceftriaxone should be explained in detail.

- 1) The drug resistance has been summarized as Table 6.

- 2) Our patient had renal rupture due to nonobstructive causes and a secondary infection of *Klebsiella pneumoniae*. We considered the source of inflammation to be the hematoma, which had existed for a long time and led to chronic infection according to the normal the urine and blood culture results.

- 3) The patient underwent bed rest, anti-infection treatment with ceftriaxone (2 g once per day) for 1 week. I have made a supplement of this point in treatment.

3. In the discussion section, the author should explain the connection between spontaneous renal rupture and *Klebsiella pneumoniae* infection as much as possible, and provide diagnosis and treatment experience of the 52-year-old female patient, and what can be learned from the neutralization.

- 1) *Klebsiella pneumoniae* infection is common in patients with immune deficiency, especially in those with diabetes or impaired fasting glucose (IFG). For this patient, we considered the reason to be 1) hemorrhage leading to anemia and chronic consumption leading to immune deficiency or 2) retrograde infection along the urinary tract.
- 2) Justyna E. Golebiewaks^[23] put forward that many patients of *Klebsiella pneumonia* infection often suffered from recurrence. We should also pay attention to the antibiotic resistance of *Klebsiella pneumonia* and adjust the antibiotic in time.
4. The authors should review the diagnosis and treatment process of patients with spontaneous renal rupture in this article, and whether there are defects, so as to provide reference for the diagnosis of other spontaneous renal rupture.
 - 1) In clinical work, patients with unknown fever should be examined to determine the source of infection and the associated pathogens and then receive targeted treatment. If patients have renal rupture, further examination should be performed, especially CT, to distinguish whether there are extrarenal factors, intrarenal factors or idiopathic factors.
 - 2) However, we did not analyze the etiology distribution, kidney function and costs among all the patients due to a lack of research, which is a deficiency of this review.

I appreciate your time to read and make comment on the manuscript. Thank you very much.

Yours Sincerely,
Chen-Guang Zhang
Jan 15, 2021.