



Management of a Giant Infected Renal Cyst in a Pregnant Woman

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Abstract: A case report of 29-year-old pregnant woman with a giant infected renal cyst. Treatment involved antibiotics, tocolysis, percutaneous drainage, and sclerotherapy, leading to a reduction in cyst production flow. Follow-up after six months showed no residual cystic lesion.

Article History

Received: 09.03.2024

Accepted: 27.03.2024

Published: 16.04.2024

Keywords: Renal Cyst – Percutaneous Drainage – Sclerotherapy.

INTRODUCTION

Renal cysts are very common and widespread, affecting about half of the population. They are generally asymptomatic and do not require treatment. However, the development of a pregnancy in an individual with a giant infected renal cyst necessitates appropriate and sometimes immediate monitoring and management. We present the case of a pregnant woman with a giant infected renal cyst.

CASE PRESENTATION

A 29-year-old woman presented with a painful right lumbar mass, which had been evolving for one month. Physical examination revealed the presence of a lumbar mass with a positive Giordano test. A CT scan identified a large, non-septated, thin-walled right renal cyst measuring 18 x 13 x 13 cm, compressing the liver, pancreas, and renal parenchyma, classified as BOSNIAK IIF. Additionally, an approximately 12-week intrauterine pregnancy was detected. The patient had normal blood pressure and leukocytosis of 20.9 G/L.

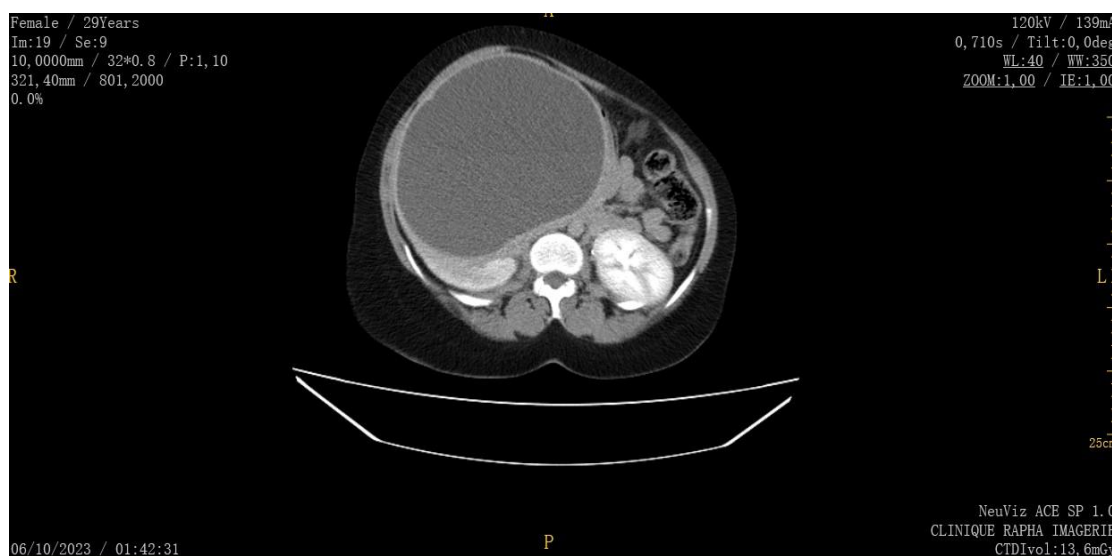


Figure 1: Image of a CT scan showing a giant renal cyst



Figure 2: Image of a CT scan showing an intrauterine pregnancy

She was treated with antibiotics, tocolysis, and emergency percutaneous drainage of the giant BOSNIAK IIF renal cyst, which resulted in the evacuation of 5300 ml of purulent fluid.



Figure 3: Image of renal cyst aspiration

Sclerotherapy with 10% iodine yellow betadine was performed over 3 days, once daily for 45 minutes, followed by a one-time instillation of 70% alcohol for 4 days.

A reduction in cyst production flow was observed over 9 days, decreasing from 600 ml to 100 ml per day. Urine was clear, with satisfactory daily diuresis.

Cytobacteriological and cytological examination of the fluid did not reveal any peculiarities. The patient received monotherapy with ceftriaxone 1 g every 12 hours and phloroglucinol 80 mg every 8 hours.



Figure 4: ultrasound image of the kidney 3 days postpartum

The patient was reviewed approximately 6 months later, and the follow-up ultrasound did not show any residual cystic lesion.

DISCUSSION

Asymptomatic renal cysts are commonly found in approximately half of the adult population, with their discovery often incidental during imaging examinations [1; 2; 3]. Onset of pain is rare and may be associated with cyst distension or irritation from its contents, occasionally inflammatory. The role of the CT urography is crucial in diagnosis, notably in suspecting cyst malignancy and classifying it according to the Bosniak classification [3; 4].

Studies are investigating a potential correlation between albuminuria and renal cyst development [5; 6; 7]; however, in our patient, the presence of albuminuria does not establish this correlation due to possible pregnancy-related factors.

Several therapeutic options exist for managing renal cysts, whether asymptomatic or symptomatic. For asymptomatic simple cysts, radiological and clinical surveillance is generally recommended [8]. In the case of symptomatic and large simple cysts, percutaneous nephrostomy drainage may be considered, possibly in combination with Sclerotherapy to reduce the risk of recurrence [8; 9; 10; 11; 12]. Other interventions, such as marsupialization and decortication, are feasible via open or laparoscopic surgery [2; 4].

The management of giant cysts in pregnant women is poorly documented. In our patient's case, percutaneous nephrostomy drainage combined with betadine Sclerotherapy for 3 days, followed by 70% alcohol, yielded good results with complete regression observed on ultrasound after 6 months and positive pregnancy progression.

In general, Sclerotherapy involves using sclerosing agents such as concentrated alcohol at 70-90% or doxycycline at 20 mg/kg in saline solution; however, the use of betadine combined with alcohol in this context is not yet well described [8; 9; 10; 11; 12]

CONCLUSION

Percutaneous drainage is an urgent therapeutic approach in managing giant renal cysts, particularly in pregnant women. The use of nephrostomy combined with Sclerotherapy may serve as a definitive alternative to invasive surgery.

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