

In the name of God



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## **Vanishing Renal Cyst or Spontaneous Rupture of a Known Renal Cyst.**

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### **Abstract:**

Simple renal cysts are very common and most are identified incidentally. Management is usually by observation. Some cysts may rupture spontaneously, mostly into the calyceal system, usually after some minor trauma. Silent rupture into the retroperitoneum monitored by MRI is presented here.

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**Key Words: Simple Renal Cyst, Rupture.**

## **Introduction:**

Simple renal cysts are very common after the age of 50 years and most are identified incidentally. Conservative management is usually the rule but some cysts may threaten the kidney or the patient and call for intervention. Most ruptures have been to the calyceal system or rarely retroperitoneally, usually after some minor trauma. Spontaneous rupture of a known simple renal cyst is a rare occurrence. Here we report a vanished renal cyst monitored by serial MRI imaging.

## **Case Presentation:**

On March 2000, I saw a 45 y/o lady with a one-month history of dull right flank pain evoked on recumbency, relieved by a change of position. US and CT revealed a large anterior uterine mass, and a right upper pole simple renal cyst extending to renal sinus but

without hydronephrosis. A conservative approach was followed for the cyst and a gynecologist operated the patient two months later, but the cyst was left undisturbed.

On September 2001 follow-up, US reported a 57x 40 mm right renal cyst, a caliceal diverticulum, and a possible stone, and IVP was suggested for further evaluation. However, a report of a CT scan performed, as a preoperative study before surgery, had not find the stone or other pathology other than a simple cyst. Since the patient was concerned, an MRI was requested. The result was a T1 hyposignal, and T2 hypersignal mass on right upper pole, posteriorly located. (Fig. 1) No abnormal internal signal was detected. Next follow-up MRI at 6 months had no change. After missing the follow-up for three and a half years, and denying any discomfort or trauma in the meantime, the patient showed up again with an US report that showed no evidence of a renal cyst. A follow-up MRI confirmed this. (Fig. 2)

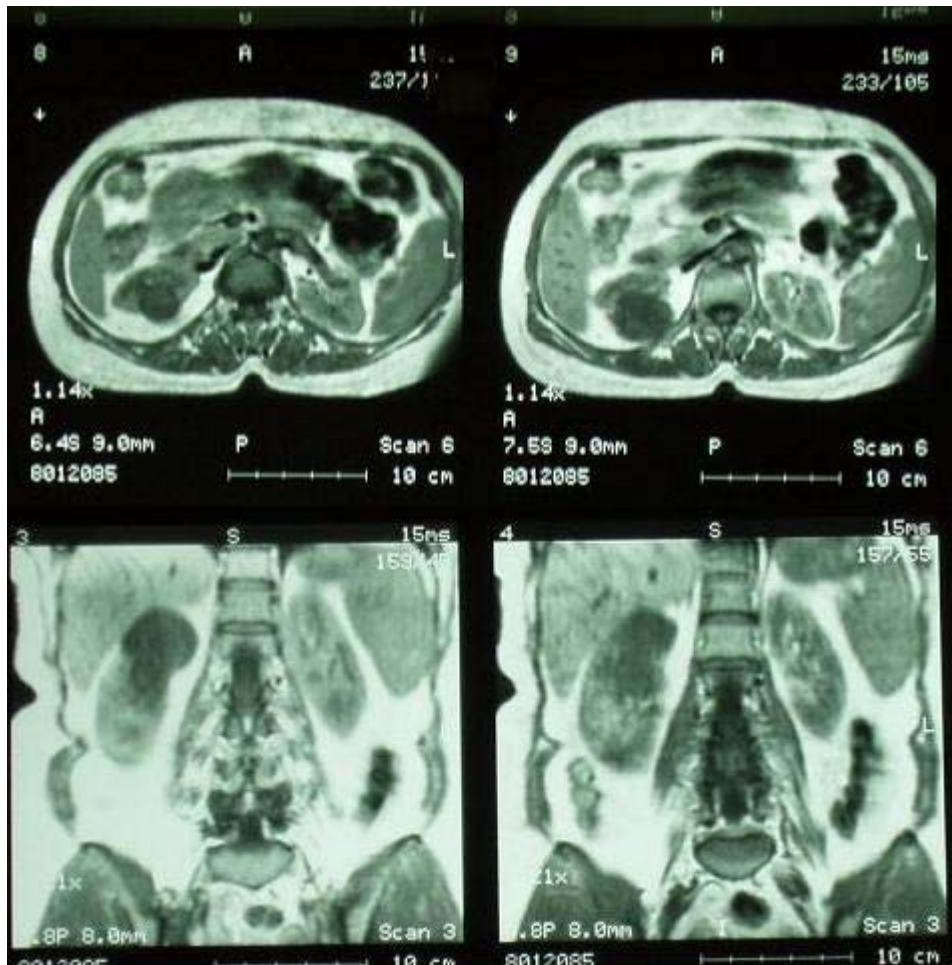


Fig. 1 Axial and frontal views of MRI scans show an upper pole, posteriorly located right renal simple cyst, hyposignal on T1 and hypersignal on T2 images.

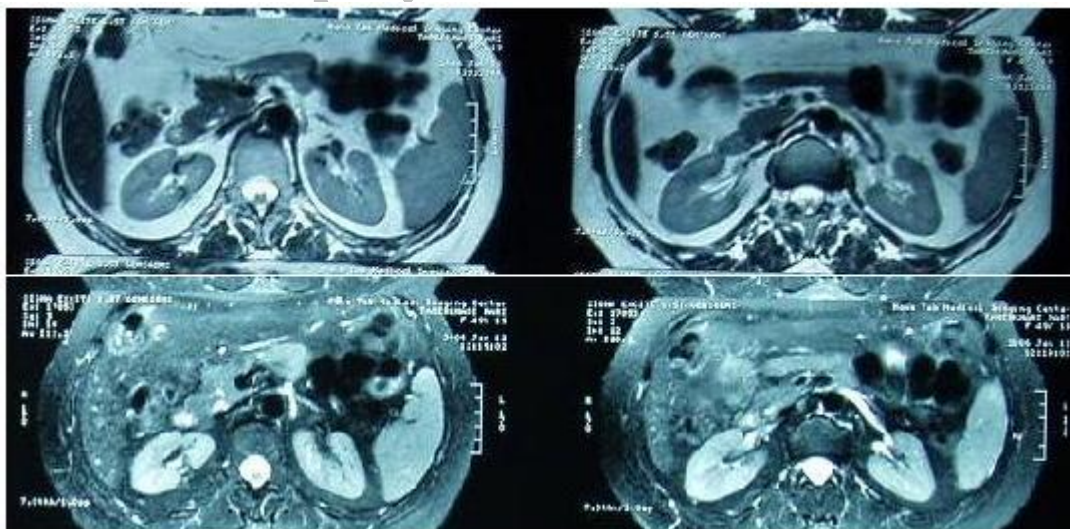


Fig. 2 Axial views of MRI scans show the disappearance of the upper pole cyst and a small scar on the upper posterior surface, T2 and Gd-enhanced images.

### Discussion:

Papanicolaou and coworkers have reported the largest series of a spontaneous or traumatic rupture of a known cyst.<sup>(1)</sup> They followed 25 patients over an 18-year period. Most ruptures (21) were spontaneous and into the calyx or renal pelvis. Only in one case, the cyst ruptured through parenchyma and capsule similar to our case.

Since the event is without symptoms, the diagnosis is made after the cyst rupture. In following up simple renal cysts, one should notify the patients that although a spontaneous rupture can have a silent course of action like our case, a simple renal cyst can

rupture spontaneously into a flank hematoma and necessitate a surgery (Wunderlich's syndrome).<sup>(2)</sup> However, even after traumatic rupture of a renal cyst, a conservative approach may yield a fruitful outcome.<sup>(3)</sup>

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