

# 1 Management of Malignant Renal Cyst -Nephrectomy Case 2 Presentation

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## 6 **Abstract**

7 Renal cysts, in general, may be classified as ?simple? or ?complex?. ?Simple? cysts are best  
8 defined using sonographic criteria. The difficulty arises when cysts do not meet the rigid  
9 characteristics of the ?simple? definition. Therefore, clinicians need to rely on a rapid, safe  
10 and accurate system to identify benign versus malignant masses and ultimately have the  
11 guidance on nonsurgical or surgical treatment options. Malignant renal cyst is a very rare  
12 disease. In literature are prescribed as 0.5-1

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14 *Index terms—*

## 15 **1 Management of Malignant Renal Cyst -Nephrectomy Case 16 Presentation**

17 Dr. Nexhat Shabani ? , Prof. Dr. Mustafa Xhani ? , Dr. Albesa Shabani ? & Dr. Rrezart Xhani ? I.  
18 Introduction renal cysts, in general, may be classified as "simple" or "complex". "Simple" cysts are best defined  
19 using sonographic criteria. The difficulty arises when cysts do not meet the rigid characteristics of the "simple"  
20 definition. Therefore, clinicians need to rely on a rapid, safe and accurate system to identify benign versus  
21 malignant masses and ultimately have the guidance on nonsurgical or surgical treatment options. Malignant  
22 renal cyst is a very rare disease. In literature are prescribed as 0.5-1% of all renal cysts (1,2). Their clinical  
23 symptoms are not specific and are mainly similar to the symptomatology of tumors and simple renal cysts  
24 (3,8). Pre operative diagnostics procedure as intravenous urography -IVU, ultrasonic sonography, computed  
25 tomography-CT, magnetic resonance imaging -MRI, diagnostic puncture of cysts and renal arteriography can  
26 rare determine the diagnosis (4,5). The diagnosis based on Bosniak classification: Bosniak 1, Bosniak 2, Bosniak  
27 2F, Bosniak 3 and Bosniak 4. Therefore the diagnosis is mostly determined by surgical intervention (6,7). In this  
28 study, the authors have presented their case of hemorrhagic malignant renal cyst, which is treated by surgical  
29 intervention -nephrectomy.

## 30 **2 II. Objective**

31 A case of malign hemorrhagic renal cyst in a 32 -year -old woman is reported. The patient was admitted to  
32 our hospital for further evaluation of right upper abdominal mass. CT scan and ultrasonic sonography showed  
33 a right giant renal cystic mass. The characteristic findings were thick and irregular wall and heterogeneous  
34 contents of the cystic mass. The presence of a malignant tumor in the cyst wall was suspected and nephrectomy  
35 was performed. The specimen measured 10 x 6 x 4 cm. The cyst contained bloody fluid and a hemorrhagic  
36 degenerating mass. Pathohistological examination showed evidence of malignant hemorrhagic renal cyst.

## 37 **3 III. Patient and Methods**

38 We are going to present the case of a female patient referred to our clinic with the initial ultrasound Author ?  
39 ? ? ?: Urology Department, Regional Hospital -Gjilan, UHC "Mother Theresa" Tirana, Albania, SLK Kliniken,  
40 Internal Medicine, Heilbronn, Germany. e-mail: nexhatsh\_urolog64@hotmail.com diagnosis of right giant renal  
41 cyst about 10 cm. Physical examination revealed no abnormalities. Given the result of the ultrasound (thick walls

## 6 VII. CONCLUSION

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42 and small irregularities) and the possibility of a complicated cyst, we decided to investigate the matter further,  
43 and programmed the patient for an enhanced abdominal computer tomography with intravenous contrast.

44 The enhanced CT images revealed a right kidney cystic mass, with a 10 cm diameter, thick irregular walls  
45 with contrast enhancement, hyperdense content, and no pathological lymph nodes or distant metastases. The  
46 diagnosis was a Bosniak IV.

## 47 4 IV. Bosniak Classification of Cystic

48 Renal Masses

## 49 5 VI. Discussion

50 Diagnosis is mainly based on histopathological features such as a well-developed capsule, fibrous stromata,  
51 multiple epithelial lining septa. According to Bosniak the renal cysts can be classified into 5 types. A simple  
52 renal cyst grows up of renal parenchyma. The cyst is filled with fluid and can cause local tissue destruction  
53 as it enlarged. Many cysts cause no symptoms and are discovered accidentally during other assessment or  
54 autopsy. Although the exact cause is unknown, cysts are considered structural defect that occurs prenatally.  
55 Diagnosis of a simple renal cyst involves intravenous urography, echosonography, diagnostic puncture, CT, MRI.  
56 Echosonography is the most commonly applied method because it reveals some features of cysts of suggesting  
57 malignancy: irregular walls, internal echoes inside the walls and the cysts, lack of characteristic potentiation of  
58 ultrasound beam (F). This indicate diagnostic puncture and analysis cyst contents. If the aspirate is bloody there  
59 is (Tomas<sup>1</sup> 2010) a 28 -50 % chance of malignancy.

## 60 6 VII. Conclusion

61 The characteristic findings were thick and irregular wall and heterogeneous contents of the cystic mass. The cyst  
62 contained bloody fluid and a hemorrhagic degenerating mass. Pathohistological examination showed evidence of  
malignant hemorrhagic renal cyst. Which is treated by surgical intervention and usually nephrectomy.<sup>1 2</sup>



Figure 1: R

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Figure 2:



Figure 3:



Figure 4:



Figure 5:

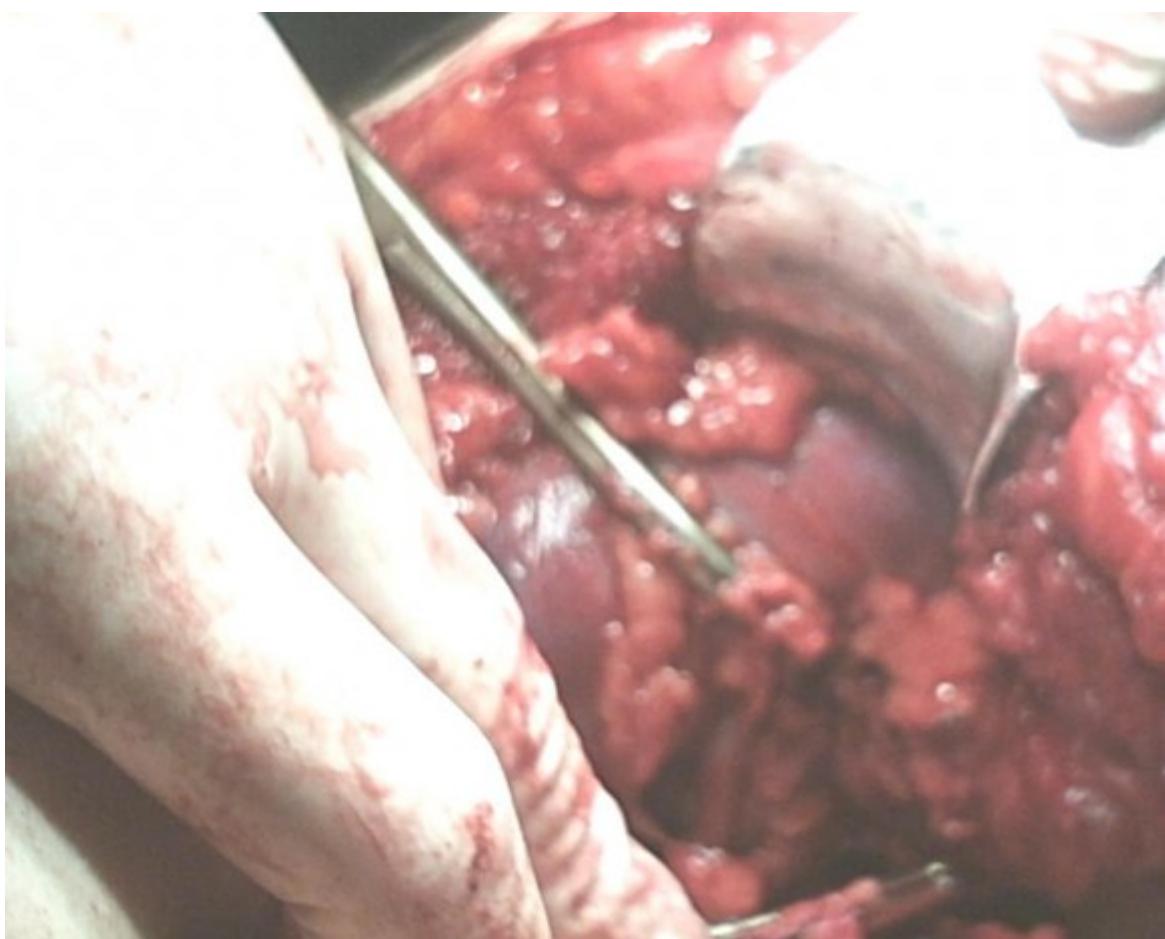


Figure 6:



Figure 7:

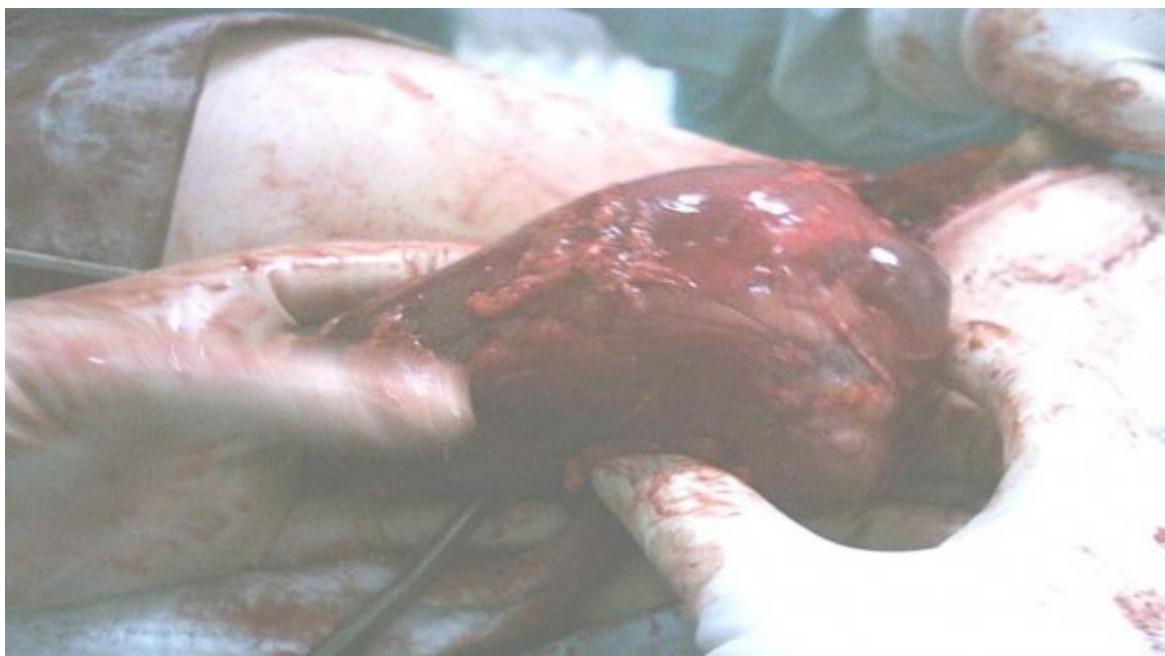


Figure 8:

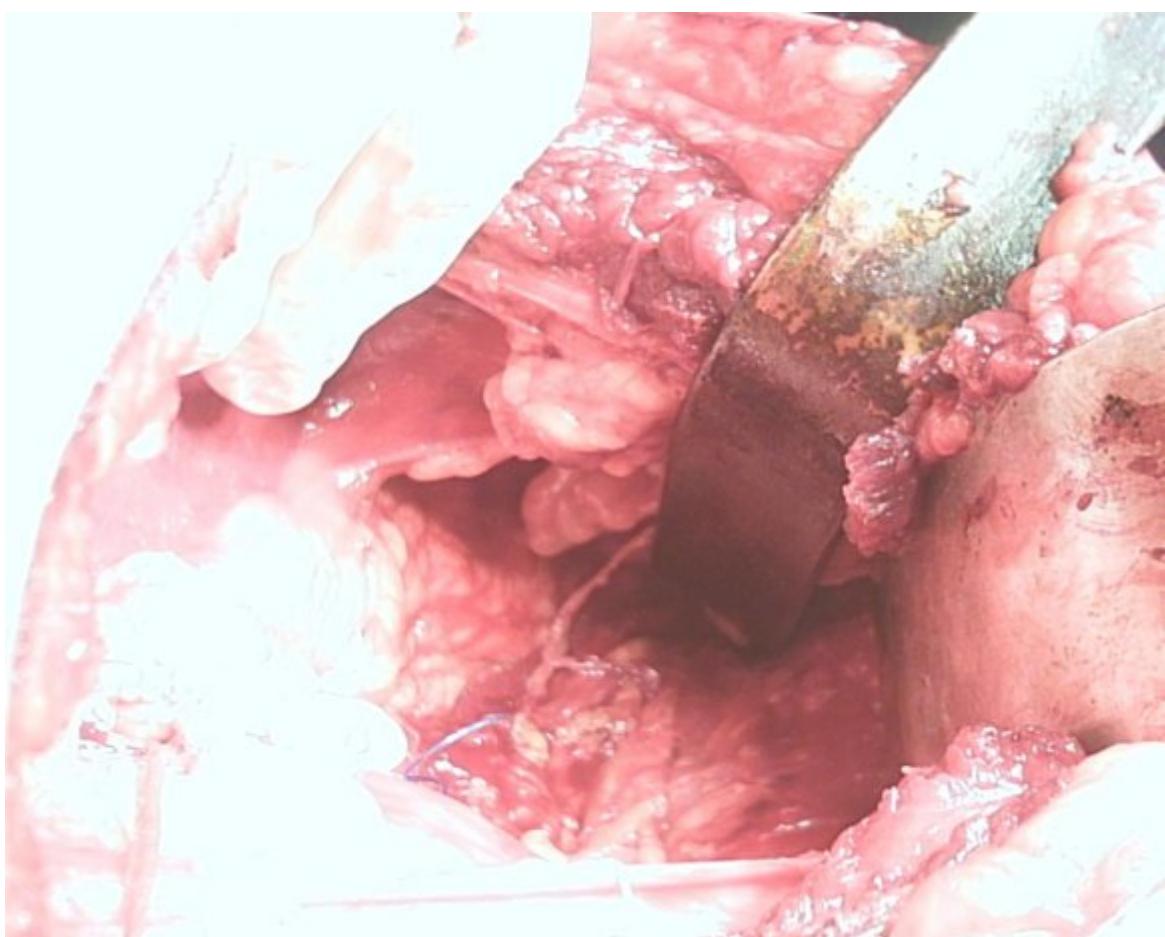


Figure 9:



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