

The Place of Partial Nephrectomy in the Treatment of Complicated Hydrocalyx

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Abstract

Case Report

The hydrocalyx is a dilation of a large calyce which does not communicate with another calyce, nor with the bassinet, it can be of congenital or acquired origin and mainly concerns the superior right calyce groups. We report the case of a patient followed for a coralliform lithiasis complicated by a hydrocalyx and treated by partial nephrectomy.

Keywords: Hydrocalyx, partial nephrectomy, coralliform, lithiasis, calyce group, lumbotomy.

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INTRODUCTION

The hydrocalyx is a rare pathology, which signifies dilation of a calyce group, it can be of congenital or acquired origin and mainly concerns the superior right calyce groups.

We report the case of a patient followed for a coralliform lithiasis complicated by a hydrocalyx and treated by partial nephrectomy.

OBSERVATION

A 40-year-old patient, with no particular pathological history, presents with chronic low back pain that has evolved over the past two years, evolving in a context of apyrexia and maintenance of general condition, without other associated signs. The evolution of symptoms was marked by the worsening of the intensity of low back pain resistant to analgesics associated with urination burns, motivating the patient to consult the emergency room.

At the emergency department, the patient was afebrile and had normal vital signs, sensitive left lumbar fossa, the rest of the examination was unremarkable. Cytobacteriological examination of urine was in favor of a multisensitive germ and the rest of the biological assessment was normal.

The urinary tree without preparation objectified an opacity of calcium tone in the left renal air (Figure 1), then supplemented by a Computed tomography which showed a large dilation of the superior calicel group upstream of a large lithiasis measuring 3cm and a density of 1200 HU starting pyelic with a cortex of the reduced calicel group (Figure 2).



Figure 1: Opacity of calcium tone in the left renal air

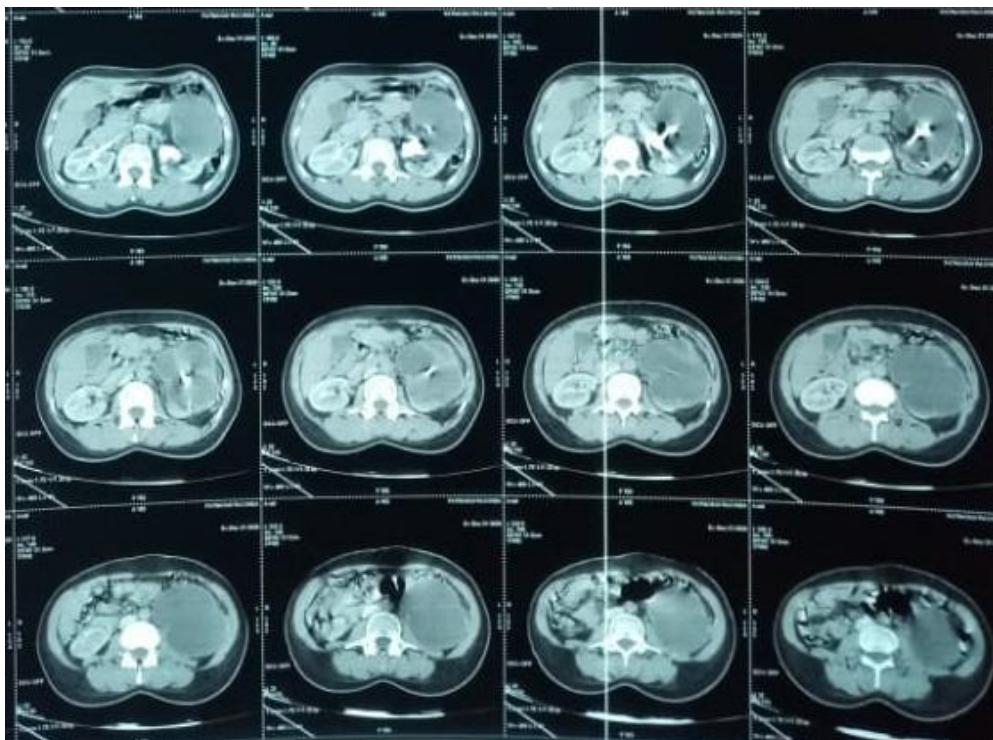


Figure 2: A large dilation of the superior caliceal group upstream of a large lithiasis measuring 3cm and a density of 1200 HU

After antibiotic therapy, the patient benefited from a surgical cure of the lithiasis by a lumbarotomy on the 12th side, with the discovery after the extraction of the large lithiasis of a large collection (1 liter) with a superior polar parenchyma totally destroyed requiring

an superior partial polar nephrectomy (Figure 3) then a JJ stent was made. A control AUSP showed complete radiological cleansing and the postoperative consequences were simple.



Figure 3: Superior partial polar nephrectomy with collection

DISCUSSION

The hydrocalyx can be of congenital or acquired origin, when it is acquired, it can be secondary to a lithiasis, a tumor, a trauma, a tuberculosis or even postoperative of a renal surgery, where as it may be of congenital origin secondary to a malformation due to stenosis of the caliceal infundibulum.

In our case, the hydrocalyx is acquired secondary to a lithiasis [1].

Low back pain is the most frequent clinical sign of hydrocalyx and was the main reason for our patient's consultation [2].

The main complications of hydrocalyx are acute or chronic pyelonephritis, destruction of the renal parenchyma and septic shock which can be lifethreatening [3]. The positive diagnosis of hydrocalyx is based mainly on URO-CT which allows to objectify the obstacle, caliceal dilation, the state of the renal parenchyma, as well as the state of the contralateral kidney. A DMSA renal scintigraphy is

useful to assess the functional value of the dilated kidney and which allows us to propose a partial nephrectomy [2].

Treatment of hydrocalyx can be conservative or radical (partial nephrectomy), conservative treatment is most often indicated and the condition of the renal parenchyma and the nature of the obstruction are important factors in choosing either the endoscopic or surgical approach. The endoscopic approach is indicated in the event of a lithiasis obstacle accessible to fragmentation by flexible urethroscopy, in the event of vascular compression where a vascular decompression is performed or in the event of caliceal stenosis where an infundibuloplasty is performed by transverse suture after a longitudinal incision of the stenosis then an evacuation of the dilation is made [4]. Radical treatment is based on partial nephrectomy [2], which is indicated in cases of destroyed renal parenchyma.

In our case, the patient had caliceal dilation complicated by purulent retention with destroyed renal parenchyma indicating partial nephrectomy.

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