

Giant Hydronephrosis in Adults in Burkina Faso: A Case Report

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1. Abstract

Giant hydronephrosis is uncommon. It is a collection of urine of more than one liter in the excretory cavities in adults. We report a case of giant hydronephrosis in a 30-year-old woman, revealed by an abdominal mass associated with intermittent pain. This patient underwent a right nephro-ureterectomy and the cause was an obstruction of the right pyeloureteral junction.

2. Summary

Giant hydronephrosis is a rare pathology. It is defined by a collection of urine of more than one liter in the excretory cavities in adults. We report a case of giant hydronephrosis in a 30-year-old woman, revealed by an abdominal mass associated with intermittent pain. This patient underwent a right nephro-ureterectomy and the cause was an obstruction of the right pyelo-ureteral junction.

3. Introduction

Giant hydronephrosis is a rare condition. It is by definition, a collection of urine of more than 1 liter in the excretory cavities of adults [5]. It occurs more frequently in children than in adults. There are different etiologies and the most common is the pyelo-ureteral junction syndrome.

4. Case Presentation

This is a 30-year-old female patient, housewife, seen in consultation for an abdominal mass of chronic evolution. This mass started in the right lumbar region and progressively increased in volume, occupying almost the entire abdomen and being intermittently painful. There were no other associated symptoms. The clinical examination revealed an abdominal voussure on inspection. Palpation revealed a voluminous, tense, sharply defined, mobile mass occupying almost every part of the abdomen. This mass was painless and dull to percussion. The biological workup performed,

namely creatinine level and blood count, was unremarkable. The cytobacteriological examination of the urine did not isolate any germs. An abdominal and pelvic ultrasound was performed in favor of polycystic kidney disease.

The uroscanner with and without contrast injection showed a large hydronephrosis occupying the retroperitoneal region and extending to the pelvis. This mass was septate in places. The left kidney was normal.

The patient underwent a right nephro-ureterectomy. The approach was median with an incision below and above umbilical. The operative part was extracted en bloc and sent for pathology. An obstruction of the right pyelo-ureteral junction was found intraoperatively. Macroscopically, the nephrectomy piece weighed 4755 grams. The histology was consistent with pyeloureteral junction syndrome.

5. Discussion

Giant hydronephrosis is rare. It is even rarer in adults. There are not many publications on this pathology in the world [5] and in Africa in particular [1,5, 7]. In the majority of cases, these were isolated cases, as in our study.

Giant hydronephrosis can be found in both adults and children [1,2 5]. It is much rarer in adults. The age of diagnosis in our case was 30 years old. It is most often secondary to pyeloureteral junction syndrome illustrated in our study. In the case of Taher I.B, no etiology was found [3]. The diagnosis of giant hydronephrosis has been suggested on the gradual increase in the volume of the abdomen sometimes associated with moderate pain and confirmed on the CT scan. The uroscanner is currently the gold standard for the diagnosis of giant hydronephrosis. It has better diagnostic performance. Acquisitions without injection and with injection allow diagnosis and etiological research to be made [1-4]. Giant hydronephrosis

can be isolated or associated with urinary tree abnormalities. R. Yassine reported a case of giant hydronephrosis in an ectopic kidney [7] and A. Benchekroun a case associated with a bladder tumor [5] (Figures 1-4). Therapeutically, giant hydronephrosis can be treated conservatively or not. Conservative treatment consists of pyeloplasty, either immediately or after nephrostomy, when the kidney retains a parenchymal thickness of more than 1 cm with a

glomerular filtration rate greater than 20 ml/min [6]. Non-conservative treatment consists of immediate nephrectomy [1, 4, 5] or a two-stage treatment consisting of drainage followed by nephrectomy [3, 7] if the kidney is destroyed with a normal contralateral kidney. In our case the treatment consisted of a left nephro-ureterectomy as in many studies. The evolution was favorable with a discharge from the hospital at the 7th day. The patient was seen at one month postoperatively and had no complaints.

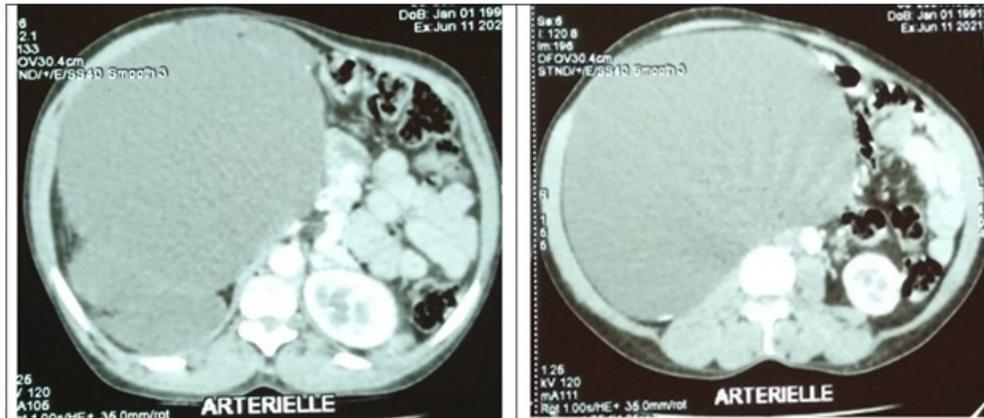


Figure 1: the uroscan in the arterial phase. Giant right hydronephrosis occupying almost two-thirds of the abdomen. The normal left kidney.



Figure 2 : dissection, release of hydronephrosis from the loops.



Figure 3 : right nephrectomy specimen.

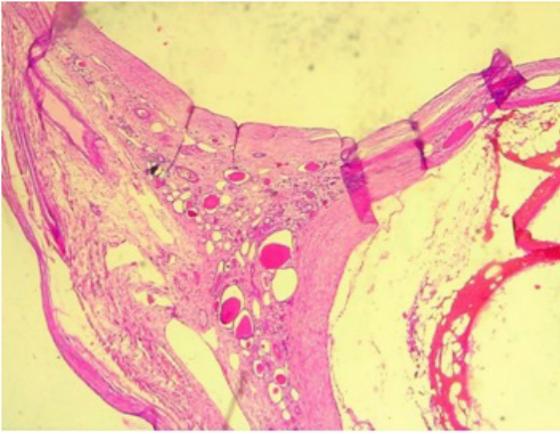


Figure 4: massive dilatation of the pelvicaliceal system and extensive inflammatory cell infiltrate

6. Conclusion

Giant hydronephrosis is a rare pathology in adults. We report a case in a woman whose etiology was pyeloureteral junction syndrome. CT scan confirmed the diagnosis and she underwent a successful right nephro-ureterectomy.

7. Declaration of Interest

The authors declare that they have no conflicts of interest in relation to this article.

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