

Primary obstructive mega ureter in adults: About a case

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Abstract

Primary obstructive megaureter is an uncommon condition in adults and requires prompt surgical intervention.

A 20-year-old male presented with left loin pain lasting 2 years. The Computed tomography revealed left side important hydronephrosis and dilatation of the entire ureter until the bladder.

Surgical exploration revealed dilatation of the ureter in front of a relatively long (7 cm) pelvic segment, with an appearance typical of primary obstructive megaeureter.

The ureterovesical reimplantation (ureteroneocystostomy) relieves obstruction and improves drainage.

Keywords: Primary obstructive megaureter; Adult urology; Hydronephrosis; Ureterovesical reimplantation; Renal function impairment

1. Introduction

This is a congenital dilatation of the ureter, of variable size, which may be total or segmental.

It is related to a functional obstruction of the distal ureter, which becomes an adynamic segment, disrupting the normal flow of urine.

This condition is usually found in children, but is rare in adults, and is discovered around the third or fourth decade of life, with a predominance of males.

Diagnosis is based on radiological imaging, which can also be used to stratify the condition.

The treatment of primary mega-ureter in adults is surgical, involving resection of the pathological part of the ureter and ureterovesical reimplantation, of which there are several techniques.

The aim of our article is to present a case of obstructive primary mega ureter in adults complicated by a non-functional kidney in the Urology Department of the Fez University Hospital.

2. Case presentation

A 20-year-old male presented to the Urological with left lumbar pain of 2 years duration, with recent aggravation.

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The Computed tomography revealed left side important hydronephrosis and dilatation of the entire ureter until the bladder (Figure 01)

The patient later had a nuclear renal scan showing a left kidney functioning at only 12% (Figure 02)

He had no bladder emptying problems (normal urinary flow rate and post voiding scan)

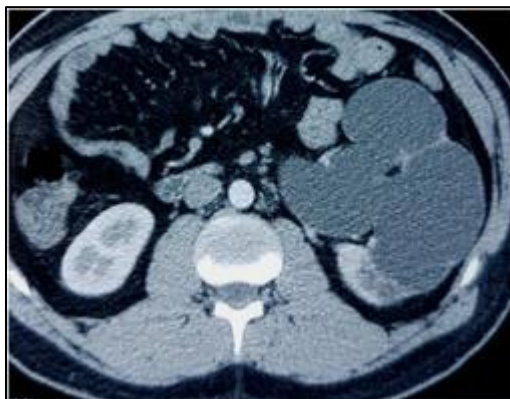


Figure 1 CT scan of the patient revealed left side important hydronephrosis

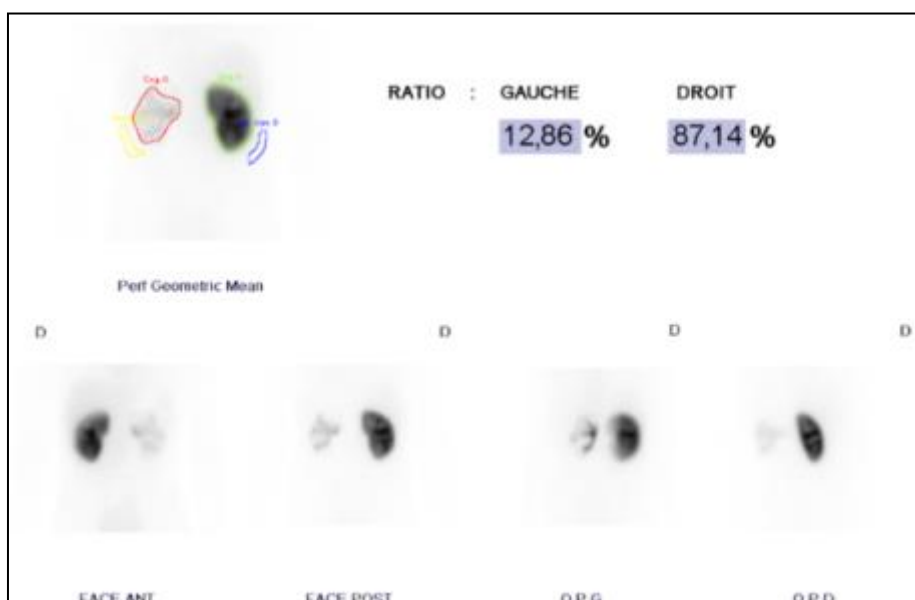


Figure 2 Nuclear renal scan

Taking these findings and the patient's symptoms into consideration, the patient was admitted to the operating theatre for uretero-vesical reimplantation (ureteroneocystostomy).

A trans-vesical approach was initially used, however, after dissection of the ureter, it was found to be narrowed over a length of 7 cm, with dilatation downstream (Figure 03)

We then proceeded to an extra vesical re-implantation using the Lich-Gregoir technique.

The patient's post-operative recovery was good. The catheter was removed after 48 hours.

A follow-up CT scan after the double-J stent was removed was satisfactory.



Figure 3 Adynamic portion of the ureter dissected

3. Discussion

Primary obstructive mega ureter is a rare condition in adults (1). It is more frequent in men than in women, with a sex ratio of 2–5 over 1 (2).

It is characterized by a clinical latency and delayed onset, which may last years, with an initial phase, during which symptoms are mainly flank pain. In the later stage, symptoms are mainly infectious and renal insufficiency.

The uro-scanner is becoming the standard imaging examination for exploring renal pathologies and the urinary tract, It replaces the Intravenous Urography (IVU) in most cases.

For some, however, the IVU remains an integral part of the pre-operative assessment, as it accurately assess the state of the parenchyma, the type of mega-ureter and any abnormalities in the uretero-vesical junction and the normality of the lower ureter (3).

The uro MRI retains its indications alongside CT, given its non-irradiating nature and the non-toxicity of gadolinium.

The radiological definition of primary obstructive megaeureter is localized fusiform dilatation of the pelvic ureter, with a normal bladder and urethra. The aperistaltic ureteral segment is without any organic ureteral obstruction. This aperistaltic segment is typically 0.5–4 cm long.

The aim of treatment is to ensure an anti-reflux system by re-implanting the ureter and reestablishing a permeable and non-refluxing uretero-vesical junction by eliminating the pathologic ureteral zone.

Surgical treatment is recommended in the majority of patients, the uretero-vesical reimplantation is the gold standard to restore renal function and prevent further complications.

Surgery on the mega ureter is difficult. It requires a great deal of meticulousness in its technical realization and a great deal of experience.

Several types of uretero-vesical reimplantation have been described, with a 93% success rate and a 7% complication rate.

The prognosis of primary obstructive mega ureter in adults is conditionné by the degree of renal involvement, hence the importance of early diagnostic and a bonne therapeutic management strategy.

4. Conclusion

The primary obstructive mega-ureter of adults is a congenital disease, It is often diagnosed at a late stage or even at the stage of complications.

The CT scan with reconstruction is the key of diagnostic , sometimes Uro-MRI in cases of renal failure.

Its treatment is surgical and its prognosis depends on the early diagnosis and the degree of the renal attack.

Compliance with ethical standards

Statement of ethical approval

Ethical approval was obtained.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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