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Isolated trauma to the pyeloureteral junction secondary to a road accident : case report

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Abstract: Closed trauma of the pyloureteral junction is very rare; there are very few cases in the literature; the symptoms are not specific; the consequences can be fatal; and the treatment depends on several factors, the most important of which is the hemodynamic stability of the patient as well. that guards the ureteral lesion.
We report the case of a young man who was the victim of a public road accident that caused trauma to the pyeloureteral junction.

Keywords: trauma , ureter , accident road

Introduction

Isolated trauma to the pyeoloureteral junction is very rare; very few cases have been reported in the literature. They were first described by Bailey in 1924. (1)

No published incidence of isolated ureteral injury due to blunt trauma could be found in the literature review. (2)

The American Association for the Surgery of Trauma (AAST) has developed a grading scale for ureteral injuries. Grade I relates only to hematomas. Grades II and III are differentiated depending on whether the laceration affects less or more than 50% of the circumference of the ureter. Grades IV and V are characterized by a complete tear of the ureter and are distinguished depending on whether the area of devascularization is less than or greater than 2 cm (2).

We report the case of a young patient with polytrauma who was diagnosed with a complete rupture of the pyeloureteric junction without other associated abdominal lesions.

Observation :

A 40-year-old man with no notable pathological history was admitted to the emergency room for treatment of a public road accident.

A motorcyclist hit by a car with multiple points of impact, with the notion of loss of acquaintance and vomiting, The patient benefited from a body scan that revealed areas of cerebral contusion at the abdominal level, rupture of the pyeloureteral junction, and urinoma. (Figure1)

The biological assessment was correct; the patient was intubated and ventilated based on neurological criteria. The abdomen was supple, and the patient did not present with hematuria. We performed retrograde ureteropyelography, which confirmed the extravasation of the contrast product. A double-J probe was placed for healing. (figure2)

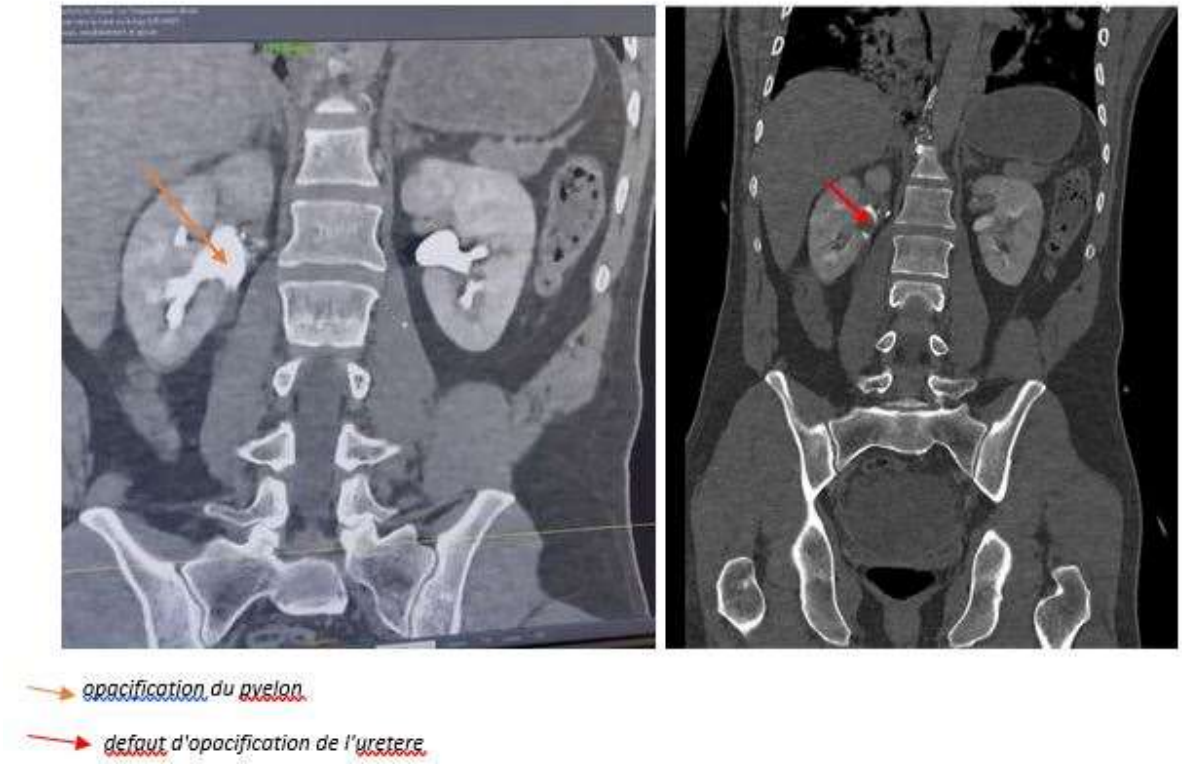

Figure 1: Opacification of the pyelon

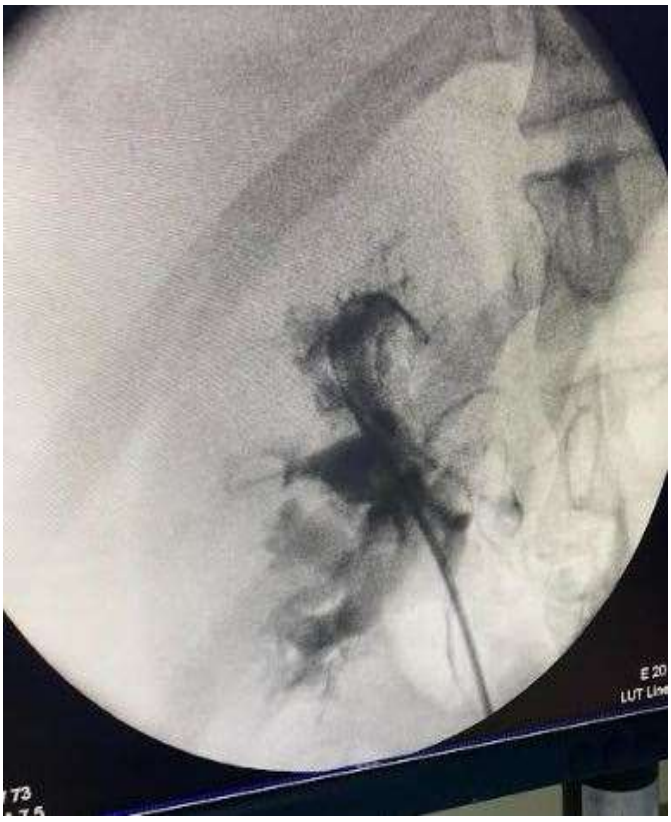

Figure 2 : retrograde ureteropyelography

Discussion:

Isolated trauma of the pyeoureteral junction is very rare, the most common etiology being public road accidents (3).

The symptoms are not specific and include nausea, vomiting, and abdominal pain. Peritonitis may occur if the injury causes extravasation of urine into the peritoneal cavity (2).

Macroscopic or microscopic hematuria is inconsistent and absent in 30 to 40% of cases. (4)

The diagnosis is most often made on a late CT scan with the observation of extravasation of the contrast product around the ureter and an absence of contrast at the level of the distal ureter in the event of complete rupture. (5)

The ureteral lesions observed in our patient are classified grade IV on the CT scan.

Retrograde pyelography, considered the most precise imaging technique (6)

However, we observed a discrepancy between the stage of the trauma on the scanner and the results of the retrograde ureteropyelography which showed an opacification of the renal cavities with a passage of the contrast product around the edges of the kidney. Allowing us to reduce the classification and the estimate to stage III, we therefore decided to place a double J probe for healing.

The treatment of ureteral trauma depends on several parameters including the stability of the patient, the location, the associated defects, the extent of the lesion as well as the time of diagnosis. (7)

In our case it is a trauma to the upper third of the ureter, according to the recommendations. If the injury is grading I-III, consider placing a ureteral stent and letting the ureter heal on the stent. If the injury involves the upper or middle ureter, consider a direct uretereterostomy (UU) or transuretereterostomy (TUU) (8).

Conclusion :

Trauma to the ureter is rare, the clinical symptoms are very poor and non-specific, the diagnosis is made by a late-stage CT scan, or by performing a retrograde ureteropyelography. Potentially fatal complications can occur which can be avoided by early diagnosis and treatment.

The characterization of the lesion allows the patient to avoid heavy treatment.

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