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Case Report

An Old Rarely Used, And Efficient Method: Ureterocalicostomy: Case Report

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Abstract

Objective: Today, many surgical interventions are performed in relation with the upper urinary system. Ureteral strictures may be observed after these interventions. Renal function loss may occur if the stricture is not treated properly. When other methods are not used in patients with long stricture in the proximal ureter and intensive scar due to the operation they have undergone, the ureterocalicostomy is a method that needs to be remembered.

Material and methods: A 26-year-old female patient presented to other centers in order to break up her ureteral calculi and she did not receive a successful outcome, and hence, she underwent an open ureterolithotomy. Open surgery was performed, and it was observed that the 6-cm part of the proximal ureter had lost its characteristics and fibrotic scars of advanced degree were present in the region. This part was excised and ureterocalicostomy was administered.

Results: On the intravenous pyelography performed at the first postoperative year, it was observed that the kidney was functioning and performing its excretion function.

Conclusion: Ureterocalicostomy is an applicable and efficient method in patients with serious and long strictures in the proximal ureter and those with fibrotic scar, as is in our case. Consequently, we are of the opinion that ureterocalicostomy should be kept in mind for maintaining the organ functions in selected patients.

Keywords: Stricture; Ureterocalicostomy; Ureter; Urinary reconstruction

Introduction

A stricture can develop in the ureter depending on open, laparoscopic and endoscopic interventions. If an appropriate and timely intervention is not performed on this stricture, it could result in kidney loss [1,2]. While the short strictures can be treated by endoscopic interventions and end-to-end anastomosis or the stricture near the Ureteropelvic junction (UPJ) can be treated by pyeloplasty, the patients for whom the other methods are not used due to long strictures in the proximal ureter and intense fibrotic scar in this region can be treated using ureterocalicostomy [3,4].

Case Report

A 26-year-old female patient presented to other centers in order to break up her ureteral calculi and she did not receive a successful outcome, and hence, she underwent an open ureterolithotomy. On the ultrasonography examination performed on the patient presenting to our clinic due to fever and left sided pain, hydronephrosis was determined in the left kidney.

On the non-contrast-mediated spiral tomography, the patient, in whom the calculus was not observed in the ureter trace, underwent retrograde pyelography. On the pyelography, a full blockage was found in an approximately 6-cm section of the UPJ region. The blockage was also confirmed by diagnostic ureterorenoscopy.

Nephrostomy was performed on the kidney and anterograde pyelography was taken. The passing of the contrast agent from UPJ region to the ureter could not be observed (Figure 1).

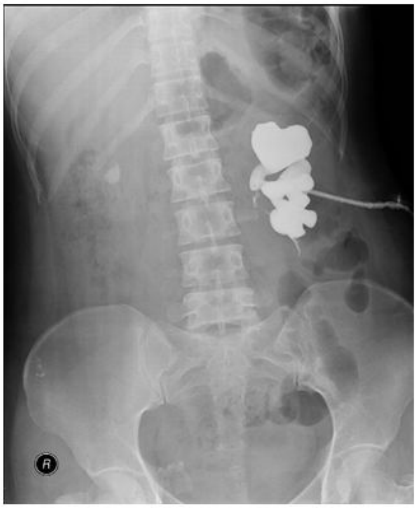

Figure 1: Preoperative anterograde.

Open surgery was performed, and it was observed that the 6-cm part of the proximal ureter had lost its characteristics and fibrotic scars of advanced degree were present in the region. This part was excised and ureterocalicostomy was administered. On the intravenous pyelography performed at the first postoperative year, it was observed that the kidney was functioning and performing its excretion function (Figure 2).

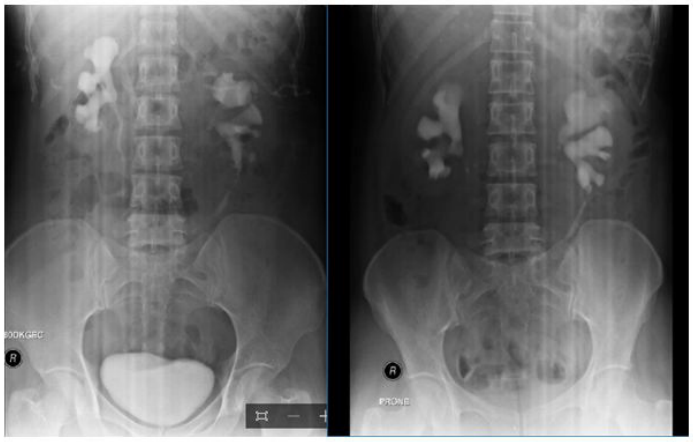

Figure 2: IVP image at the first postoperative year.

Discussion

Ureterocalicostomy is a procedure with limited indications but with important application in the infrequent patient in whom the more desirable methods of creating unobstructed ureteropelvic drainage cannot be used. This paper reported a 26-year-old female patient underwent an open ureterolithotomy and was observed that the kidney was functioning and performing its excretion function.

Ureterocalicostomy was defined by Neuwirt in 1947 [1]. It is generally used after unsuccessful UPJ stricture operations in whom the anastomosis cannot not be applied, because the pelvis is completely intra-renal in UPJ strictures, and iatrogenic in proximal ureteral injuries [5]. It is a method that can be applied laparoscopically, robotically, or openly. Since it is a rarely used method, the number of cases even in the series in the literature is limited [6]. Although proximal ureteral strictures and secondary UPJ strictures are treated with endoscopic interventions today, ureterocalicostomy is an applicable and efficient method in patients with serious and long strictures in the proximal ureter and those with fibrotic scar, as is in our case [7]. Although the follow-up period of our case was limited, the successful short-term result suggested that this method is an applicable method. Consequently, we are of the opinion that ureterocalicostomy should be kept in mind for maintaining the organ functions in selected patients.

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