Ureteroiliac Artery Fistula: An Uncommon Complication of Double-J Ureteral Stent

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Clinical Image

A 60-year-old woman diagnosed with a squamous cell carcinoma of the cervix, treated by radiochemotherapy. The last radiation therapy session has been realized 4 months before she came to our emergency unit for an acute Obstructive Renal Failure (ORF). Abdominal CT has shown a bilateral ureteropelvic dilatation and the blood creatinine was high (600 μmol/l) (Figure 1). The ORF was caused by a malignant ureteral obstruction due to the cervix cancer progression in addition to the radiation-induced ureteral phenomenons. To relieve the urinary tract obstruction, we performed a urinary diversion by a bilateral polymeric double-J ureteral stent. Two days after the procedure, blood creatinine decreased, however, massive macroscopic hematuria occurred. An enhanced abdominal CT has shown a left Ureteroiliac Artery Fistula (UIAF), which immediately requested the endovascular placement of a covered iliac artery stent (Figure 2). UIAF is an uncommon complication of a double-J ureteral stent. Few cases have been described in the literature [1,2].

Figure 1: Abdominal CT showing an ureteroiliac artery fistula (red encircled).
A: Venous Phase; B: Arterial Phase.

Figure 2: Abdominal CT showing the endovascular covered stent (red encircled).
A: Non-enhanced CT, B: Arterial Phase, C: Venous Phase, D: Excretory Phase

Abbreviations:
CT: Computed Tomography; ORF: Obstructive Renal Failure; UIAF: Ureteroiliac Artery Fistula

References