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URETERAL INJURY DUE TO KIRSCHNER WIRE IN A FIVE – YEAR – OLD GIRL A CASE REPORT*

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SUMMARY: Altın MA, Gündoğdu ZH. (Department of Pediatric Surgery, Numune Hospital, Ankara, Turkey). Ureteral injury due to Kirschner wire in a five-year-old girl. A case report. Turk J Pediatr 1994; 36: 77-79.

Traumatic injury to the ureter in childhood is uncommon, and since it is not associated with hematuria may remain undiagnosed for a relatively long period of time. In this paper we reported the case of a five-year-old girl who had ureteral injury due to Kirschner wire application for hip dislocation. We drew attention to the fact that pelvic interventions may be complicated by ureteral injury, and intravenous pyelography to a useful tool to reach the final diagnosis. *Key words: ureteral injury, Kirschner wire.*

Ureteral injuries are uncommon in children, accounting for only 4 percent of all genitourinary trauma[1]. Lower ureteral injury may occur in conjunction with pelvic fractures[2]. Injuries from ureteral catheterization and stone basketing are of more concern in children than adults because of the relatively smaller diameter of the ureter[3]. However, to the best of our knowledge, no patient has previously been reported in the literature as having ureteral injury due to Kirschner wire application.

Case Report

A five-year-old girl was treated in our orthopedic department for bilateral congenital dislocation of the hip. A Kirschner wire was inserted, and she was discharged after immobilization with a pelvipedal cast (Fig. 1a, 1b). She was readmitted three months later with abdominal distension, vomiting and failure to pass stool, and the case was brought for consultation to our department.

Abdominal ultrasonography showed ascites as well as a cystic mass filled with fibrinoid material in the retroperitoneal region posterior to the bladder. The patient was diagnosed with a retroperitoneal pelvic abscess and underwent surgery.

During the operation, ascitic fluid, purulent material and fibrin were found posterior to the bladder, and abdominal ascites was noted. The region was explored and a retroperitoneal drain employed. Following surgical intervention,

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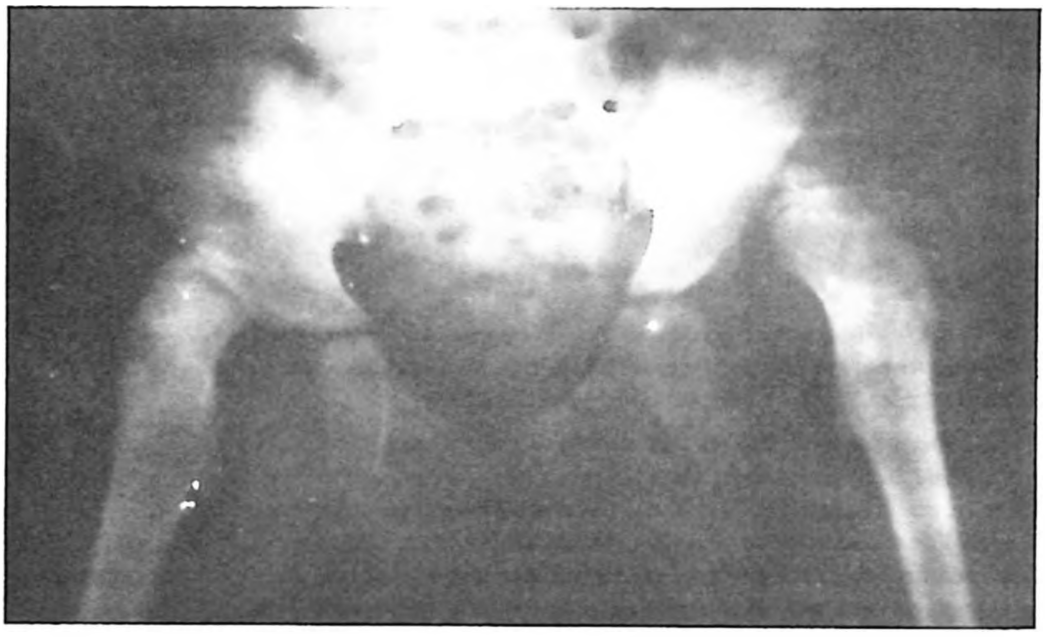

Fig. 1a: Direct pelvic graph of 5 year-old-girl with bilateral congenital dislocation of the hip.

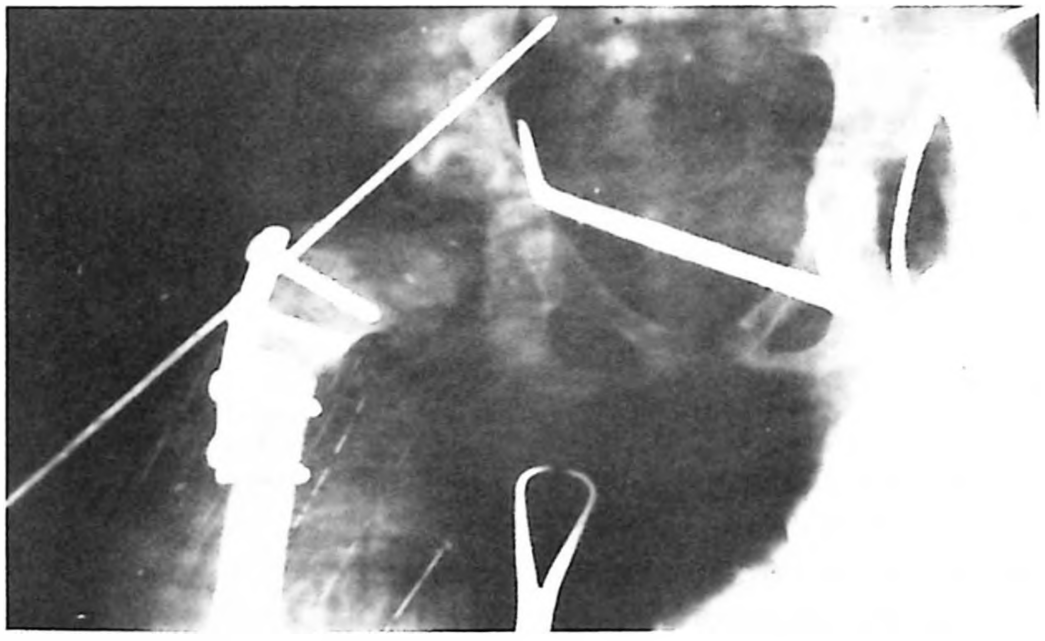

Fig. 1b: After Kirschner wire was inserted.

urine-like fluid was found draining from the operative site. Therefore an intravenous pyelograph (IVP) was done and revealed ureteral urine flowing into the abdominal cavity (Fig. 2). On exploratory surgery, the right ureter was seen to have been sectioned close to the bladder, and the proximal portion of the ureter was fixed to the posterior wall of the abdomen. The right kidney was mobilized downwards, both portions of the ureter were found and after removal of the devitalized ends, the ureter was repaired by end-to-end primary anastomosis. The patient was discharged without further complications and was symptom-free on follow-up.

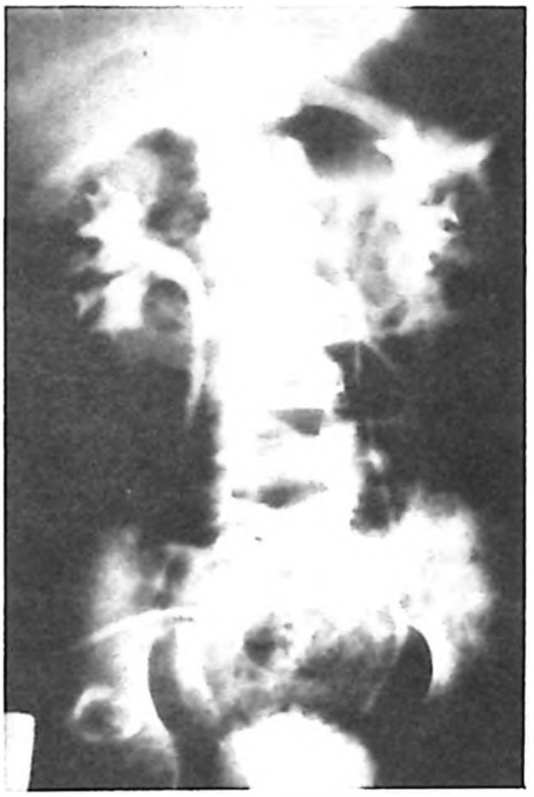

Fig. 2: IVP showing the ureteral extravasation in the pelvic region.

Discussion

Traumatic injury to the ureter in childhood is uncommon. Because children with this injury may not have hematuria, the condition may go unrecognized for a long period following the accident unless an excretory urogram is obtained routinely in cases of severe blunt abdominal trauma[4,5].

This case illustrated that ureteral injuries may occur following pelvic interventions. Our findings emphasize the point that intravenous pyelogram (IVP) sould be performed to avoid dangerous delays in accurate diagnosis.

Acknowledgements

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