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Letter to the editor

Delayed detection of ureteral thermal injury in laparoscopic surgery

To the Editor,

The number of reports of ureteral injuries has increased with the number of laparoscopic surgeries. Some studies have claimed that the incidence of ureteral injury in laparoscopic surgery is 0.3–2.0%.[1] About 50–70% of ureteral injuries are not diagnosed immediately postoperatively.[2] Unexpected thermal injury during laparoscopic surgery is a possible cause of ureteral injury; however, it is rare. Ostrenski et al reported that among 70 cases of ureteral injury, the cause was thermal injury in only one case (1.4%).[1] Here, we present a case in which ureteral thermal injury occurred despite perioperative discharge of indigo carmine dye from the ureteral orifice. A 70-year-old woman underwent right adnexectomy for an ovarian tumor. Because of strong adhesions of the ovarian tumor to the pelvic wall, we used a monopolar electric scalpel to remove the adhesions. After adhesiolysis, we coagulated and transected the right suspensory ligament using a BiClamp forceps, unintentionally exposing the right ureter (Figure 1).

One month after surgery, the patient complained of right back pain. Computed tomography revealed right hydronephrosis and ureteral stenosis. Delayed ureteral thermal injury was suspected, and a ureteral 6 Fr double-J stent was placed. Up to the present day (2 years after surgery), the patient has visited our hospital every 4 months for ureteral stent exchange.

Ostrenski et al reported that instruments used for electrocautery were identified as the leading cause of laparoscopic ureteral injury and accounted for 24.3% of cases.[1] In the present case, we performed electrocautery and coagulation using a monopolar electric scalpel and a BiClamp forceps, which could cause ureteral thermal injury.

The reported risk factors for ureteral injury are endometriosis, large uterus, extensive adhesions, malignancy, and previous surgery.[2] However, these risk factors are not uncommon.

Ureteral injury should be investigated in cases of acute abdominal pain after laparoscopic surgery even if it occurs long after surgery. This is not a novel case; therefore, we hope that this case encourages gynecologists to rethink the importance of early recognition of ureteral injury.

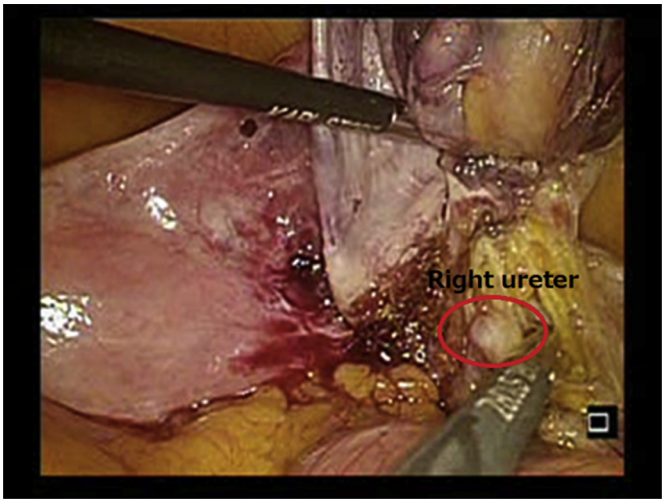

Figure 1. Intraoperative findings of the pelvis show the right ureter after transection of the right suspensory ligament.

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