IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 19, Issue 7 Ser.17 (July. 2020), PP 24-26
www.iosrjournals.org

Ovarian vein injury complicating repositioning of the dialysis catheter by laparoscopy

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Abstract
Although the hemorrhagic complications of repositioning of the peritoneal dialysis catheter by laparoscopy due to vascular lesions are well known. Damage of ovarian vessels is rarely described. We are precisely reporting a rare case of vascular injury of the right ovarian vein following a laparoscopy of repositioning having as consequences a right hemostasis annexectomy and even a transfer to hemodialysis.

Keys words: injury of ovarian vein, laparoscopy complications, peritoneal dialysis

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Date of Submission: 15-07-2020 Date of Acceptance: 31-07-2020

I. Introduction:

The proper functioning of the peritoneal dialysis catheter is necessary for the management and success of this method of extrarenal purification, which can be interspersed with both infectious and mechanical complications. The most frequent is migration and omentum wrapping of the catheter which requires a repositioning of the catheter in the pelvis to improve the quality of peritoneal dialysis that can be performed by laparoscopy which isn't free from complications

We are precisely reporting a rare case of vascular injury of the right ovarian vein following a laparoscopy of repositioning having as consequences a right hemostasis annexectomy and even a transfer to hemodialysis.

II. Observation:

We report the case of 39 years old female patient, mother of 03 children, followed for hypertension for 05 years, poorly controlled, complicated by vascular nephropathy in the stage of chronic end-stage renal disease. After informed consent, the patient is put on continuous ambulatory peritoneal dialysis, which proves effective, without incident for 2 years

The patient presented with a dysfunction of the peritoneal dialysis catheter, the abdominal CT objectified a omentum adhesion with a bacteriological study in favor of localized peritonitis.

The patient is therefore put on appropriate antibiotic therapy, then repositioning of the peritoneal dialysis KT under laparoscopy.

On day 1 of the postoperative treatment, the patient presents hypotension at 80/40 mmHg and tachycardia with a state of hemorrhagic shock, with not response to multiple transfusion and an abdominal CT(figure I) which revealed a peritoneal effusion of great abundance, hematous at the pelvic level and in right peri-ovarian space suggesting a vascular injury of the right ovarian vein.

The patient is taken back to the emergency room with a right hemostasis annexectomy followed by the preparation of an arterio-venous fistula and transfer to conventional hemodialysis.

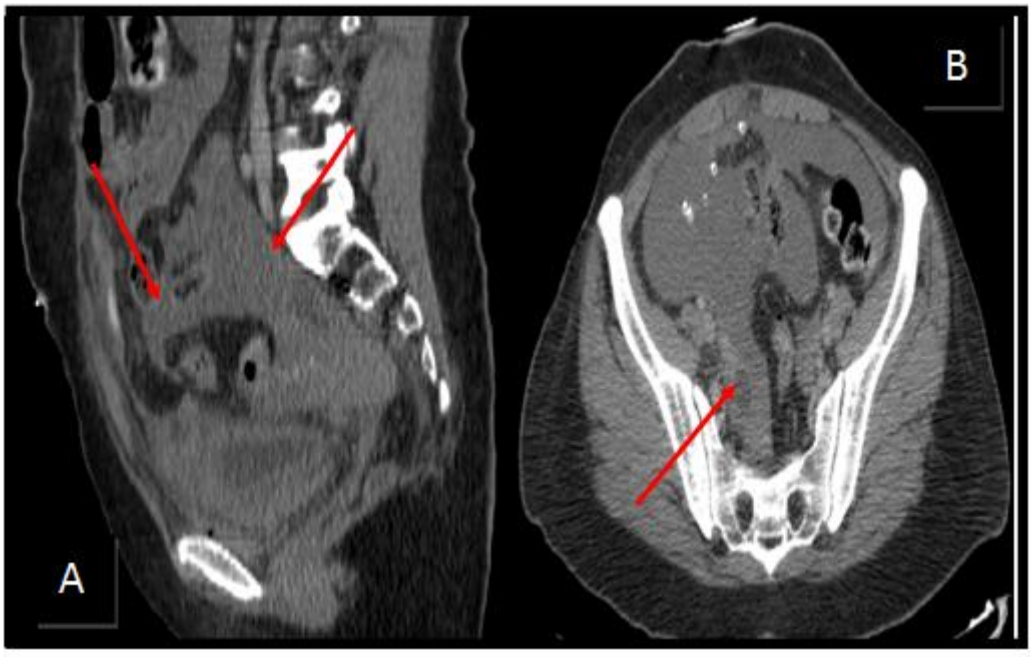

Figure I : A/ abundant hemoperitoneum due to lesion of the right ovarian vein
B/ spontaneous hyperdensity related to active bleeding from the right ovarian vein

III. Discussion :

Catheter malfunction has plagued peritoneal dialysis patients since the first catheter was placed in 1968. No insertion technique has been able to prevent this complication which is frustrating to patients and doctors alike. It causes an interruption in dialysis. In fact, in one analysis, 19.6% of 7,694 patients who transferred to hemodialysis from peritoneal dialysis during the first year of therapy did so because of mechanical catheter issues [1,2]. Catheter malfunction is due to catheter kinking external to the skin, or from internal catheter obstruction[3] or extraluminal occlusion of the catheter holes by fibrin sheath encapsulation, omental wrapping, peritoneal adhesions, or adjacent organs (small intestine, bladder, appendix, fallopian tube, etc.) will result in outflow failure. Finally, there can be compartmentalization of the peritoneal cavity by adhesions, or migration of the catheter tip outside of its dependent location in the pelvis which prevent adequate flow[4-7].

Our patient initially presented a migration of the catheter with omental wrapping treated by repositioning laparoscopy of catheter in pelvis which it was complicated by active bleeding due to vascular injury of the right ovarian vein.

Bleeding is a risk after laparoscopic PD catheter insertion occurring in 0 to 5% [8]. The catheter insertion site is through the rectus sheath and significant bleeding may occur from injury to the inferior epigastric artery [9 ,10]. But in our knowledge, no publication concerning the vascular injury of ovarian vessels has been described in this context.

If a vascular injury identified should be managed by ligation during the procedure. Bleeding complications may also present as postoperative rectus sheath hematoma which may be managed non operatively in selective cases. Omentectomy and lysis of adhesions may also predispose to postoperative intraabdominal bleeding [10]. Finally, bleeding may also occur at the exit site and may be controlled with direct pressure or sutures. Bleeding complications associated with PD catheter insertion may be associated with anticoagulation. Therefore coagulation parameters should be checked and corrected preoperatively[10]. The use of desmopressine has not been studied but may be helpful in a patient who develops a bleeding complication [10].

The hemorrhagic complications of repositioning a peritoneal dialysis catheter by laparoscopic following migration or omentum wrapping are not negligible. Ovarian vessel damage is rarely described

A rapid and urgent management with ligation intra-operativelymust be done if the lesion was identified . but in our case an annexectomy of hemostasis on the right side was mandatory because of the great abundance hemoperitoneum and the very active bleeding

Conclusion :

Although the vascular lesions complicating laparoscopic surgery are well described, a lesion of the ovarian vein after repositioning of the dialysis catheter by laparoscopy is rarely raised, aggravated in our context

by the episode of peritonitis and especially by repositioning after migration of the catheter , adhesions and omentun wrapping.

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Dina Ibrahim Montasser, et. al. " Ovarian vein injury complicating repositioning of the dialysis catheter by laparoscopy." *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, 19(7), 2020, pp. 24-26.