

An Unusual Cause of Spontaneous Hemoperitoneum during Laparoscopy

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Background

Laparoscopy is a commonly performed minimally invasive surgery used to evaluate the intraabdominal and pelvic cavity. Hemoperitoneum during laparoscopy is a rare, but serious complication that may result from trocar entry and may occur due to damage to the major blood vessels such as inferior vena cava, aorta, and iliac arteries. Spontaneous hemoperitoneum during laparoscopy may prompt emergent laparotomy however, surgeons must be aware of benign causes to prevent major surgeries that may delay wound healing and increase postoperative complications.

Objective

To highlight alternative differential diagnosis and an unusual cause of spontaneous hemoperitoneum at laparoscopy as a result of hemorrhagic corpus luteum cyst rupture.

Methods

25 yo G0 presented for hysteroscopic septoplasty, laparoscopy, and chromotubation for a uterine septum and inability to conceive. Pelvic exam under anesthesia was performed and an uncomplicated uterine septum excision was performed with hysteroscopic scissors. Attention was then turned to the abdomen for a diagnostic laparoscopy. Through a trans-umbilical incision, direct placement of the trocar was performed wherein approximately 500cc of blood pooled within the trocar. Immediate evacuation of the hemoperitoneum was performed with laparoscopic suction with careful evaluation of the uterus for evidence of perforation. Surprisingly, upon further evaluation, a left hemorrhagic corpus luteum cyst was noted to be actively bleeding followed by spontaneous hemostatic clotting.

Results

Chromotubation was performed confirming tubal patency and absence of uterine perforation. The patient's post-operative course was uncomplicated and limited to an outpatient procedure, whereby she was successfully able to avoid an exploratory laparotomy.

Conclusion

Direct placement of trocar during laparoscopy is recommended to decrease the risk of surgical site complications, particularly injury to major blood vessels. Spontaneous hemoperitoneum during diagnostic laparoscopy could occur due to concomitant hysteroscopic complications or due to hemorrhagic corpus luteum cyst, as demonstrated in our case. Preoperative pelvic examination or uterine manipulation during hysteroscopy could provoke an acute hemorrhage of a corpus luteum cyst. Women's health surgeons need to recognize that hemorrhagic corpus luteum cysts are a self-limited cause of acute hemoperitoneum at laparoscopy and should recognize that emergent exploratory laparotomies may not be required to stabilize the patient.