Case Report

Laparoscopic Management of Perforated Copper “T” in sigmoid colon – Two stage approach

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Abstract

Introduction: Intrauterine contraceptive device (IUD) migration from the uterus is a known but a relatively rare complication. Migration of the device in the surrounding viscera can be life threatening. We report a case of migrated Copper T, which had perforated the sigmoid colon. The case was managed with laparoscopic removal and intra corporeal suturing of the sigmoid perforation.

Keywords: Intrauterine, laparoscopic, perforated.

Introduction

Copper “T”, Intra uterine contraceptive device has been used widely since its introduction by Richter in 1909. The use has become more wide and common because it is safe, long acting highly effective and economically viable. [1,2] Complication such as expulsions of the IUD, heavy bleeding, painful cramps, infection, ectopic pregnancy and uterine perforation are reported. [3,4]. Uterine perforation is a rare complication and seen at the rate of 1-2/1000 insertions and could be life threatening.[5]. 15% of such perforations lead to complications in the adjacent visceral organs, primarily the intestines and the urinary bladder. Sigmoid colon perforation by migrated Copper “T” is one of the rare complications associated. Plain X-ray abdomen is a good investigation for confirming the migration and laparoscopic removal is the method of choice in such scenario.

Case Report

A 35 years old lady presented to gynecologist with complains of intermittent pain in the abdomen with non-visualization of the copper T thread for the last one-year. She also expressed her desire to undergo a tubal ligation with this consultation. On examination her thread was missing, uterus of normal size with no adnexal mass. She had two live issues; two girls age 7 and 5. A Plain X ray abdomen in standing position showed the migration of the Copper T from the uterine cavity. Abdominal examination showed deep tenderness in the left iliac fossa. Patient was counseled she needs to undergo surgery for misplaced copper T and tubal ligation can be done in the same setting. The gynecologist took her for laparoscopic procedure and findings revealed that the copper T has migrated from the uterus and perforated the sigmoid colon. A general surgeon was called for opinion, who opine as it has perforated the sigmoid colon with no peritoneal contamination. A better choice would be to prepare the left side of colon, consent the patient and relative and do the foreign body removal at a later date. The procedure of tubal ligation was done and patient was discharged with counseling to come for definitive surgery after four weeks. At 4 weeks she was given bowel preparation and plan for laparoscopic removal of copper T.

Laparoscopy was done in supine position with 3 ports, one 10mm camera port and two working 5mm ports. Laparoscopic findings revealed, the vertical limb of Copper “T” has perforated the sigmoid colon. (Fig.1) the vertical perforated limb was removed, peritoneal lavage given and as it was a small perforation an intra...
Uterine perforation is the most serious complication of IUDs and could be life threatening. There were more than five cases in which death occurred in relation to uterine perforation by IUD. [6] The diagnosis is made by the absence of string at the cervix and proved by plain X ray of abdomen. The most common reported places for this migration were the omentum, rectosigmoid colon, peritoneum and bladder and nearby viscera. [7,8,9] The migration of Copper “T” with perforation in sigmoid colon is a rare presentation. The management differs as per the presentation and location of IUD. After establishing the diagnosis by clinical and radiological methods, laparoscopy can be a safe tool for localization and well as removal of migrated IUD.

## References

6. Zakin D, Stern WZ, Rosenblatt R. Complete and partial uterine perforation and embedding following insertion of intrauterine devices. I classification, complications, mechanism, incidence and factors responsible for the IUD perforation can be consistency and flexion of the uterus (immobile, fixed or retroverted uterus ), the type and the rigidity of the IUD and its inserter, early puerperal insertion (within 12 weeks of delivery) the experience of the clinician and the amount of force exerted at insertion. [6,10] The presenting complains of patient with lost or migrated IUD can be from missing string of device, abdominal pain, unexplained fever and diarrhea as with perforation of the hollow organ. [9] A single complain of missing string is important and the physician should try to locate the IUD by either a plain X ray abdomen or by a transvaginal ultrasound scan. The blood investigations for inflammatory markers like CRP or leukocytosis can be normal. Laparoscopy is the method of choice for diagnosis and its therapeutic management. The success rate for visualization and removal of such migratory IUD devices is 100% as compared with laparotomy. [11] Some authors report a contraindication to laparoscopy if there is an injury to intestine.[11] Migration of Copper “T” with perforation in sigmoid colon with no peritoneal contamination, no consent to operate on different organ the surgery for Cu T removal was postponed. After informed consent and proper bowel preparation the laparoscopic removal and closure of colonic perforation was carried out. Endoscopic removal of the IUD would have been catastrophic, as while removing the vertical limb of IUD the horizontal limb would have bigger the size of perforation and peritoneal spillage and later presenting as sepsis. [12] The present case diagnostic laparoscopy was done for localization of the migrated copper T and for tubal ligation. Intraoperative findings of migration of IUD in sigmoid colon with no peritoneal contamination, no consent to operate on different organ the surgery for Cu T removal was postponed. After informed consent and proper bowel preparation the laparoscopic removal and closure of colonic perforation was carried out. Endoscopic removal of the IUD would have been catastrophic, as while removing the vertical limb of IUD the horizontal limb would have bigger the size of perforation and peritoneal spillage and later presenting as sepsis. The best way to prevent migration of IUD is to prevent uterine perforation. Considering adequate training and examination of uterus for its size, fixity and consistency before insertion are important factors.

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