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SHORT COMMENTARY

Parasitic Fibroid: Complication of Post-Laparoscopic Morcellation

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Abstract
This is a short commentary on one of the unusual complication of laparoscopic surgeries, which is difficult to diagnose, thus creating new challenges for a treating surgeon.
Background Uterine fibroid is a common gynaecological condition. But, one of its variants, called as parasitic fibroids, is a rare one and is difficult to diagnose because of their varied presentations. But, with the increase in laparoscopic surgeries, especially where morcellator is used, cases of parasitic fibroid are increasing.
Case Discussion Description A forty-two-year-old female presented with abdominal pain, not related to any gastrointestinal or urinary complaints. Patient had history of laparascopic myomectomy followed by morcellation in the past. Ultrasonography was suggestive of mass in right iliac region adjacent to ascending colon with whorl like appearance. Tumour markers were sent, diagnostic laparoscopy was performed which was suggestive of parasitic fibroid, arising from previous surgical port.
Conclusion Complications of parasitic fibroid can occur when morcelletor is used in laparoscopic surgeries, because of the growth of tissue which have spread in pelvic cavity. To prevent this complication, endobag morcellation should be used.
Clinical Significance History of morcellation, should be asked to females, presenting with varied abdominal complaints, and history of laparoscopic surgery, possibility of parasitic fibroid should be considered in these patients.

Keywords Parasitic fibroid · Laparoscopic morcellation · Endobag morcellation

Introduction

Uterine fibroid is the most common gynaecological condition affecting almost 20–50% of women [1]. However, its variant called as parasitic fibroid is a rare condition. Different theories are given for etiopathogenesis of parasitic fibroid. The classic and most acceptable theory is that these lesions arise from pedunculated serosal fibroid, which over a period of time gets separated from the uterus, may be because of torsion around its peduncle, and starts receiving its blood supply from another source such as omental or mesenteric blood vessels [2]. Another theory suggests that these lesions develop from metaplasia of peritoneum [3]. In recent years, with the use of laparoscopy and removal of fibroid with morcellator, another theory is hypothesised that these arise due to accidental seeding of small fragments of fibroid in the peritoneal cavity after morcellation [2]. Ostrzenski reported first such case of parasitic fibroid in 1997 in patient having a history of laparoscopic morcellation [3].

Case Discussion

A 42-year-old female presented with complaints of pain in the right side of the abdomen since 3 months. She had no history of nausea, vomiting, or any urinary, and menstrual complaints. She had a past history of uterine fibroid, which

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was diagnosed 3 years back during her infertility evaluation, and underwent laparoscopic myomectomy and morcellation. She conceived with IVF treatment. She underwent elective lower segment cesarean section around 16 months back.

Her ultrasonography was suggestive of well-defined rounded, solid lesion with whorled appearance of about 4 cm × 5 cm with minimal free fluid in right iliac region and small posterior wall uterine fibroid of 2 cm × 1 cm. Computed tomography of abdomen and pelvis revealed single well-defined lesion of 4 cm × 5 cm, adjacent to ascending colon, anterior to psoas muscle with maintained fat planes, suggestive of neurofibroma/gastrointestinal stromal tumor (GIST). Tumor markers like carcinoembryonic antigen (CEA), CA 19-9, CA-125 were within normal range. After proper counselling of the patient and relatives and discussion with the gastrointestinal surgeon, the decision of diagnostic laparoscopy and SOS laparotomy was taken.

After taking a proper written informed consent, with stand by from gastrointestinal surgeon laparoscopy was done. Intraoperatively, a round globular structure of about 5 × 5 cm was seen hanging in the abdominal cavity, attached from the anterior abdominal wall at the previous port site on the right side (Fig. 1). No aberrant vasculature or adhesions were seen with the adjacent organ. The entire mass along with one centimetre margin of anterior abdominal wall peritoneum was removed and delivered from abdominal cavity with the help of endobag morcellation and sent for histopathological examination. Small serosal fundal wall fibroid of 2 × 1 cm was also removed (Fig. 2). Entire bowel was examined, and peritoneal wash was given. Her postoperative period was uneventful and she was discharged on third post operative day. Histopathological report confirmed the diagnosis of parasitic fibroid.

Discussion

Fibroid is a common gynecological condition occuring in women and is easily diagnosed clinically and by ultrasonography. But, parasitic fibroid on the other hand is difficult to diagnose. Many times, it is an incidental finding, and sometimes, it is seen during surgeries operated for some other diagnosis. With the advent of laparoscopic surgeries, many cases of parasitic fibroid have been reported. The overall incidence of parasitic fibroid after laparoscopic surgery with the use of morcellation was reported to be between 0.95 and 1.2% [2, 4]. It is hypothesised that during morcellation, small tissue of fibroid fragments is easily lost in the peritoneal cavity and can regrow into parasitic fibroid, and sometimes, it results in the growth of multiple parasitic fibroid nodules mimicking leiomyomatosis peritonealis disseminata (LPD) [2, 4]. Thus, preventing such disseminations of tissue fragments is the best preventive option for parasitic fibroid, and this can be done by doing morcellation in endobag, but it is expensive and not readily available in all laparoscopic centres.

Growth of uterine fibroid is under the influence of gonadal steroid hormones like estrogen and progesterone. Similarly, it is hypothesised that prolonged exposure of steroid hormones either exogenous or endogenous as in hormone replacement therapy or in pregnancy, respectively, could also be a risk factor for development of parasitic fibroid after laparoscopic morcellation [2, 4]. In our case, our patient received IVF treatment and became pregnant after laparoscopic myomectomy. Thus, this could be one of the triggering factors for the growth of seedings of fibroid which had been left during morcellation, resulting in parasitic fibroid at port site.

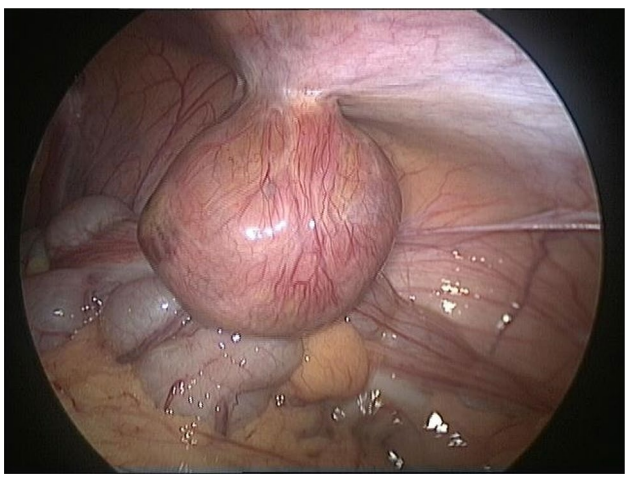

Fig. 1 Parasitic fibroid

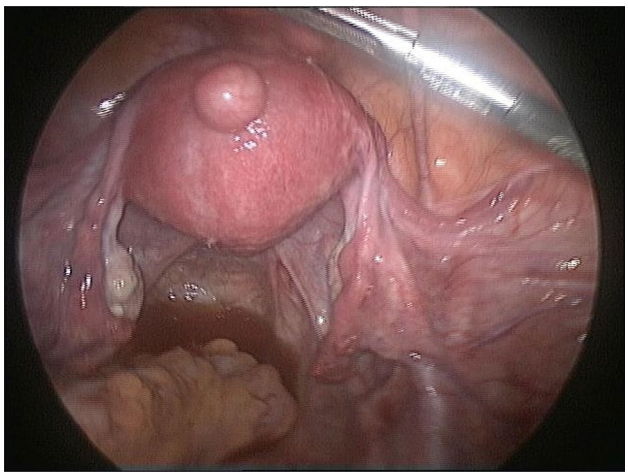

Fig. 2 Uterus with serosal fibroid

Conclusions

Parasitic fibroid can present with different signs and symptoms, depending on its location and size, thus creating a dilemma for gynaecologist for confirmation of diagnosis. In females, presenting with varied abdominal complaints and with previous history of laparoscopic surgery, history of morcellation should be asked and possibility of parasitic fibroid should be considered. With the increasing trend of laparoscopic morcellation, incidences of such complications are rising. Thus, to prevent this complication, one should opt for endobag morcellation rather than open morcellation, thus preventing the seedling of fibroid fragments in the peritoneal cavity.

Compliance with Ethical Standards

Conflict of interest The authors declare that there is no conflict of interest.

Ethical Statement All procedures followed were in accordance with the ethical standards of responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2008.

Informed Consent We have taken informed consent of patient for taking photographs and publishing the short communication in journal. We have maintained respect and confidentiality of our case. We have not caused any harm to the patient. Our short communication is independent and impartial.

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