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# UTERINE LEIOMYOMA PARTICLE GROWING IN AN ABDOMINAL-WALL INCISION AFTER LAPAROSCOPIC RETRIEVAL

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**Background:** As laparoscopic myomectomy gains acceptance among patients and pelvic surgeons, new laparoscopic techniques create a risk for complications that were not encountered in classic laparotomy myomectomy. Report of such complications will allow surgeons to undertake appropriate steps to prevent them.

**Case:** Fragments of uterine leiomyomas unintentionally implanted and growing in abdominal-wall incisions after laparoscopic myomectomy presented clinically with incisional pain and an abdominal-wall mass of increasing size. Diagnosis was confirmed by the histology, and treatment was achieved by excision.

**Conclusion:** In the differential diagnosis of a progressively increasing incisional mass and pain after laparoscopic myomectomy, inadvertent implantation and growing particles of uterine leiomyomas should be considered when fragmented tumors are removed through a trocar sleeve. (*Obstet Gynecol* 1997;89:853-4. © 1997 by The American College of Obstetricians and Gynecologists.)

The prevalence of particles of uterine leiomyomas inadvertently, seeded and growing in abdominal-wall incisions after laparoscopic myomectomy cannot be identified, despite a computerized search of the literature for the years 1985-1996, using Medline and appropriate terms selected from Medical Subject Headings. In the case reported here, diagnosis and definitive treatment were reached by excisional biopsy and histology. Incisional pain and an incisional mass of increasing size may indicate the presence of such a complication after laparoscopic myomectomy.

## Case Report

A 43-year-old woman, gravida 1, para 1-0-0-1, presented with dull and constant midline suprapubic pain in a laparoscopic incision scar. The onset of pain was gradual during the 2 months after a laparoscopic myomectomy for intramural penetrating uterine cavity uterine leiomyomas (aggregate dimension 9 × 8 × 2 cm, weight 40 g; diagnosed microscopically as a uterine leiomyoma). During laparoscopic myomectomy,

the tumor had been fragmented and retrieved through a 10-mm suprapubic trocar sleeve. Pain was aggravated by physical activity and partially relieved by nonsteroidal anti-inflammatory drugs. Initial examination 2 months after laparoscopic myomectomy revealed a 1 × 0.5-cm palpable abdominal-wall incisional mass, which was noted in the patient's medical record. The lesion, deep in the abdominal wall, appeared to be firm, tender, and of limited mobility. There was no discharge from the incision, which healed well, with no noticeable incisional induration, redness, or swelling. The initial clinical impression was delayed postoperative deep incisional abscess formation or local inflammatory response to suture material. Physical examination revealed no additional abnormality, and pertinent laboratory study results were within normal limits. Ultrasound examination of the abdominal wall ruled out abscess. There was no discharge present for culture. The patient was advised to increase the dose and frequency of pain medication.

Within 5 months after initial evaluation and conservative treatment, the mass had grown to approximately 2 × 2 cm. Pain fluctuated in frequency, intensity, and duration; however, minimal to moderate pain was always present. Possible incisional endometriosis implantation was considered, and low-dose oral contraceptives were given for 2 months. Such conservative management did not decrease pain or mass size.

With the patient under sedation and local infiltration with 1% lidocaine, a mass measuring 2.5 × 2 × 0.5 cm was excised. The lesion was located in the rectus muscle and surrounding fascia. Gross excised tissue examination demonstrated a fragment of irregular, pink to dusky tan-gray tissue. The mass was cut in two, and the sectioned surface was pink-white. The microscopic examination confirmed that it was a uterine leiomyoma.

## Discussion

Since the introduction of laparoscopic myomectomy technique,<sup>1</sup> some observers have expressed concern about excessive intraoperative bleeding, the closing and inversion the endometrium, and adequate myometrium reconstruction in layers, and this technique is considered to be experimental.<sup>2</sup> A randomized trial of laparoscopic versus laparotomy myomectomy documented the benefits of laparoscopic technique; postoperative pain was less and recovery time shortened when compared to the classic approach.<sup>3</sup>

Retrieval of uterine leiomyomas after laparoscopic myomectomy through abdominal-wall incision requires myoma fragmentation, presenting an opportunity for particles of uterine leiomyomas to be inadvertently implanted into live, healthy tissue, providing nourishment for myoma fragments. In contrast, laparotomy myomectomy does not require the uterine leiomyoma to be fragmented before retrieval from the abdominal cavity. Therefore, we did not observe the

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implantation of such particles in the abdominal incision.

The patient's initial laparoscopic myomectomy surgical notes were reviewed. The tumor body was divided into pieces intra-abdominally and removed through a reusable, sharp, 10-mm suprapubic trocar sleeve with a 10-mm laparoscopic claw grasper and/or a 5-mm laparoscopic corkscrew. We did not find any equipment or skill failure. The only speculative explanation that we can offer is that during the process of removing a fragmented tumor, a small piece of the myoma was trapped between the outer surface of the trocar sleeve and the abdominal-wall incisional canal. Upon removal of the trocar sleeve, a piece of the uterine leiomyoma was dislodged and implanted in the incision.

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