Case Report

Iatrogenic parasitic myomas following uterus removal: a preventable entity

Ramesh Bettaiah, Shraddha Neminath Kurkuri*, Satwik Basavaraj Metgud, Chaithra TM

Department of Gynaecological Endoscopy and Infertility, Dr Ramesh Hospital, Bangalore, Karnataka, India

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*Correspondence:
Dr. Shraddha Neminath Kurkuri,
E-mail: www.snk3061988@gmail.com

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ABSTRACT

Increasing trend of iatrogenic parasitic myomas has compelled us to review about preventive measures to tackle this menace. We are sharing our experience of two unique cases of parasitic myomas. Even though it is not completely preventable, strategic steps will definitely reduce the incidence and severity. With increased magnification and access to the entire abdominopelvic cavity, a laparoscopic view may be more beneficial for diagnosis of unknown or unsuspected masses as well as prevention.

Keywords: Iatrogenic parasitic myomas, Pelvic mass, Laparoscopic morcellation, Hysterectomy

INTRODUCTION

Iatrogenic parasitic myoma (fibroid) remains a rare late complication with an incidence of less than 1%.1 In the era of laparoscopic power morcellation during total laparoscopic hysterectomy (TLH) for huge fibroids and safe modern anaesthesia and surgery including laparotomy, are we ignoring the sinister complication of iatrogenic parasitic myomas?

Fibroid uterus is the most common benign tumors in reproductive age women accounting for large percentage of surgical procedures in gynaecological practice.2 They occur in approximately 25% of women of reproductive age and are noted at pathological examination in approximately 80% of surgically excised uteri. Following any procedure on these fibroid uteri there is chance of leaving behind small fragments of myoma, incidence being 0.57% of subtotal hysterectomies.3

CASE REPORT

Case 1

A 44 year old lady with lower abdominal pain and low backache had undergone total laparoscopic hysterectomy with bilateral salpingo-oopherectomy about two years back with power morcellation of specimen. We removed the parasitic myoma (confirmed by microscopic examination) about 5 x 6 cm in size laparoscopically which was morbidly adherent to bladder and rectal serosa after adhesiolysis (Figure 1A, 1B). Associated with postoperative surgical drain, blood transfusion and prolonged hospital stay.

Case 2

A 46 year old lady with acute urinary retention had undergone total abdominal hysterectomy one year back. There was a parasitic myoma of about 12 x 7 cm at rectovaginal septum (Figure 1C, 1D). We removed the myoma (confirmed by microscopic examination) vaginally (Figure 1E) after laparoscopic exploration. It could have been prevented by thorough pelvic examination peri-operatively during primary surgery, as it would have been missed due to deep location.

DISCUSSION

Parasitic myoma is described as the myoma that is partially or almost completely separated from the uterus and receives its main blood supply from another source.
Table 1: Review of literature of iatrogenic parasitic myoma following hysterectomy.

<table>
<thead>
<tr>
<th>Study</th>
<th>No. of cases</th>
<th>Age in yrs</th>
<th>Primary surgery</th>
<th>Power Morcellation</th>
<th>Estrogen replacement therapy</th>
<th>Interval (months)</th>
<th>Signs and symptoms</th>
<th>Second operation</th>
<th>M (No)</th>
<th>M (Size in cm)</th>
<th>Location</th>
<th>Histology</th>
</tr>
</thead>
<tbody>
<tr>
<td>La Coursiere et al⁵</td>
<td>1</td>
<td>36</td>
<td>TLH</td>
<td>Yes</td>
<td></td>
<td>10</td>
<td>Pain, dyspareunia</td>
<td>-</td>
<td>4</td>
<td>0.4-0.7</td>
<td>Pelvic sidewall, bowel serosa, culdesac</td>
<td>Leiomyoma</td>
</tr>
<tr>
<td>Sinha et al⁴</td>
<td>2</td>
<td>41,48</td>
<td>TLH</td>
<td>Yes</td>
<td>nil</td>
<td>36</td>
<td>Pain, mass</td>
<td>LM</td>
<td>3</td>
<td>15</td>
<td>Dome of the diaphragm</td>
<td>Leiomyoma</td>
</tr>
<tr>
<td>Larrain et al⁴</td>
<td>2</td>
<td>39,56</td>
<td>TLH</td>
<td>Yes</td>
<td>1</td>
<td>99</td>
<td>Pain, vaginal mass</td>
<td>LM/TVM</td>
<td>2</td>
<td>4-7</td>
<td>Pelvis, vagina, CDS</td>
<td>Leiomyoma</td>
</tr>
<tr>
<td>Cucinella et al³</td>
<td>2</td>
<td>34,37</td>
<td>TAH + LM</td>
<td>Yes</td>
<td>nil</td>
<td>24,72</td>
<td>Mass, pain, dyspareunia</td>
<td>LM</td>
<td>3.5</td>
<td>3.5</td>
<td>--</td>
<td>Leiomyoma</td>
</tr>
<tr>
<td>Current study</td>
<td>2</td>
<td>44,46</td>
<td>TLH + BSO/TAH + LSO</td>
<td>Yes/No</td>
<td>Case -1</td>
<td>18</td>
<td>Distension/ Urinary retention</td>
<td>LM/TVM + Lap excision of chocolate cyst</td>
<td>2</td>
<td>6-11</td>
<td>Rectal serosa/ rectovaginal septum</td>
<td>Leiomyoma</td>
</tr>
</tbody>
</table>

It can be because of spontaneous separation, previous uterine surgeries particularly morcellation (iatrogenic) and secondary to restriction of blood supply. While most cases reported are associated with laparoscopic myomectomy, some cases have occurred with supra-cervical hysterectomy, total laparoscopic hysterectomy and vaginal hysterectomy also.⁴

These women may be asymptomatic (25%) or symptomatic (like pain abdomen, mass sensation, bladder/bowel symptoms, deep dyspareunia), depending on the location (most common being colon serosa and pouch of douglas) as discussed in the Table 1.³

Figure 1A: Initial panoramic view of pelvis with no evidence of intraperitoneal fibroid.

Figure 1B: Fibroid deciphered from anterior wall of rectal serosa after retroperitoneum dissection.

Figure 1C: MRI (saggital view) of parasitic fibroid displacing the bowel and compressing the bladder and its neck.
In the advent of iatrogenic parasitic myomas causing psychological trauma and burden of health care cost and morbid nature of surgery due to dense adhesions and retroperitoneal location of these tumours, we the surgeons should keep in mind the preventive measures like morcellation in endobag, thorough strategic lavage of abdomen and removal of myoma bits, using reverse trendelenburg and change of position.\textsuperscript{2} It is imperative to ensure that the morcellator is sufficiently sharp. For fragile myomas, the fragments can be collected into an endobag and removed completely.\textsuperscript{1} While removing specimen vaginally we have to check for small missing subserous myomas, into removal of specimen and to avoid estrogen replacement therapy as against our Case 1, rather use other supplements for postmenopausal symptoms.\textsuperscript{4} Meticulous surgical technique with systematic surveying of the entire peritoneal cavity and complete retrieval of even small fragments of morcellated tissue should be practiced so as not to iatrogenically increase the risk of morbidity associated with parasitic myomas. Perhaps something as “benign” as inadvertently leaving behind small fragments of myoma may lead to a sinister pathological condition.\textsuperscript{4}

**CONCLUSION**

In the era of safe surgeries including minimal invasive approach for huge benign fibroids, we should take adequate peri-operative measures to prevent the sinister pathological condition (iatrogenic parasitic myoma). Long term follow up is likewise recommended to detect the parasitic myoma even in menopausal patients because of the malignant potential. Increased awareness of parasitic myoma as a pathological entity warrants thorough exploration of the abdominopelvic cavity during surgery. With increased magnification and access to the entire abdominopelvic cavity, a laparoscopic view may be more beneficial for diagnosis of unknown or unsuspected masses as well as prevention.

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**REFERENCES**
