Laparoscopic myomectomy of a giant myoma

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Summary

We present the case of an infertile woman with a giant myoma which was laparoscopically removed. A 34-year-old patient was referred to our department with a large abdominal mass. Ultrasound revealed an 18 cm uterine myoma. Diagnostic laparoscopy showed a giant uterine myoma and with the help of a bent angle camera we started myoma enucleation. The myoma was totally enucleated and removed without disturbing the endometrial cavity. The uterine defect was closed with an absorbable suture in two layers. The myoma was removed using a PK (Gyrus) morcelator, without tissue or blood spillage in the abdomen. The operation time was 165 minutes and the myoma's weight was 1,200 g. The patient recovered uneventfully. Laparoscopic myomectomy can be an option even for giant myomas, with the condition of an expert surgeon and appropriate surgical instruments.

Key words: Laparoscopic myomectomy; Giant myoma.

Introduction

Laparoscopic myomectomy is a minimal invasive method for management of myomas in women of reproductive age. It offers several advantages, such as shorter hospitalization, faster recovery, fewer adhesions, and less blood loss [1-3]. The main problem is that advanced laparoscopic technical skills are required to perform laparoscopic myomectomy [4]. As a result the procedure is used more frequently for small- and medium-sized myomas [5-8] and there are only a few series of myomectomies for large myomas [9, 10]. We report the case of a 34-year-old patient with a giant myoma who underwent total laparoscopic myomectomy.

Case Report

A 34-year-old nulliparous patient was referred to our department with a large abdominal mass. Bimanual examination revealed a mass which extended from the pelvis up to the abdomen. Abdominopelvic ultrasonography showed an uterine myoma measuring 18 x 10 cm in size. The sonographic appearance of the mass aroused no suspicion of malignancy and the serum concentration of CA-125 was within normal limits.

Written informed consent was obtained from the patient and diagnostic laparoscopy was performed under general anesthesia. The patient was placed in a modified lithotomy position. A foley catheter was inserted and no uterine manipulator was used. Carbon dioxide was insufflated through a Veress needle through the Pulmer's point. The first assistant held a bent angle camera for better surgical vision in his left hand and grasping forceps in his right (Figure 1). The operator enucleated and removed the myoma without disturbing the endometrial cavity and the uterine defect was closed with an absorbable suture in two layers with intra corporeal knots (Figure 2). The myoma was then removed using a PK (Gyrus) morcelator, without tissue or blood spillage in the abdomen (Figure 3).

The operation time was 165 minutes and the myoma weighed 1,200 g. There was no need for blood transfusion intra- or postoperative and the estimated blood loss was 200 ml. The patient was mobilized the first postoperative day and the recovery was uneventful. The pathology report confermed uterine myoma and the patient was advised that in case of a future pregnancy she should undergo a cesarean section.

Discussion

Today there is a delay in the age of first pregnancy and consequently uterine preservation is necessary in even more cases of symptomatic myomas including large myomas.

Laparoscopic myomectomy using pneumoperitoneum is considered a procedure that requires experienced laparoscopic surgeons [11] and therefore it is not used widely for large myomas. Even though laparoscopic myomectomy offers a better cosmetic result, faster recovery and less postoperative adhesions, disagreement still exists concerning the usefulness of laparoscopic myomectomy for large myomas. It is suggested that the myomas size should not exceed 8 cm [12, 13]. There are reports that bigger myomas result in increased operative time and blood loss, and their cleavage is more difficult [14].

In this article a case of a very large myoma is presented which was successfully removed laparoscopically. As effective enucleation of the myoma is the most crucial step, a bent camera was used in order to improve the surgical vision because the myoma occupied the whole abdominal cavity. This camera afforded the opportunity to enucleate the myoma without bleeding, using bipolar diathermy. Special care was taken to minimize any thermal damage by coagulating under direct vision. There was no excessive blood loss, although this is considered a major problem for large myomas [15]. It is very important for the surgeon to have the appropriate instrumentation. A smart bipolar diathermy offers the best

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Fig. 1

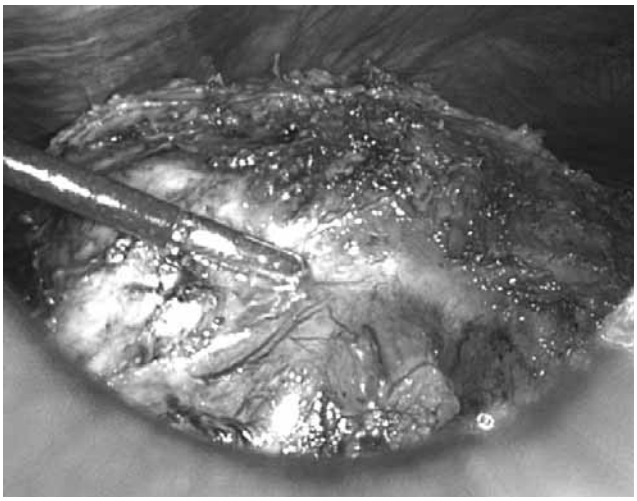

Fig. 2

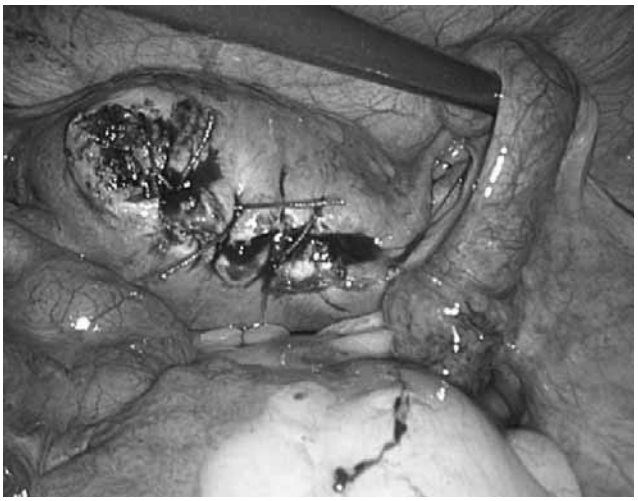

Fig. 3

Figure 1. — Laparoscopic view of the giant myoma.

Figure 2. — Uterus after enucleation and laparoscopic suturing.

Figure 3. — Myoma removed by morcelator.

hemostasis by coagulation, minimizing the thermal damage on the uterus. Moreover the bent camera gives the opportunity to surgically approach areas that the surgeon would not be able to reach with a conventional camera.

The uterine incision was repaired in two layers for better integrity of the myometrium and hemostasis [11, 16]. A 2-0 absorbable suture performing intra corporeal knots was used. The final result was very satisfactory and the patient was advised to undergo a cesarean section in future pregnancy.

The operative time was 165 minutes and most the time was consumed for the removal of the myoma with a PK (Gyrus) morcelator. This morcelator has the advantage of no tissue or blood spillage in the abdomen, preventing from future adhesions and ensuring a better fertility result. It should also be mentioned that laparoscopy results in fewer adhesions than laparotomy with vertical incision which was our other choice.

The patient recovered uneventfully and was discharged the third day after the operation. She needed only paracetamol as painkillers and did not complain of any significant postoperative abdominal discomfort.

This satisfactory result can be explained by the advantages of laparoscopic myomectomy performed by an experienced surgeon. We believe that this is the best choice for fertility preservation even in cases of large myomas considering the other methods that have been proposed, such as mini-laparotomy [15, 17] or gasless laparoscopic myomectomy [18-21].

However further studies on extensive series are needed to better define the indications and long-term results.

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