Case Report

Single Incision Laparoscopy and Vaginal Hysterectomy for the Approach of Endometrial Cancer in a Morbidly Obese Patient

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Abstract

Single incision laparoscopy (SIL) is the last breakthrough in the field of minimally invasive surgery. It is considered as a promising technique for the approach of abdominal and pelvic cavities, and emerges as an alternative to open surgery or multiple incisions laparoscopy (MIL). Recent studies have hypothesized that SIL might provide better scars and less parietal trauma if compared to MIL. In this article, we report a case of a video-assisted vaginal hysterectomy through SIL in a morbidly obese patient with diagnose of endometrium carcinoma, using SITRACC (for “single trocar access”; EDLO, Porto Alegre, Brazil) port.

A 35 year old obese woman with endometrial adenocarcinoma type I was approached with SIL using a SITRACC device, inserted under the skin and subcutaneous tissue followed by a vaginal hysterectomy and bilateral oophorectomy. The length of hospital stay was 24 hours. In postoperative visits, after one, two and four weeks after surgery, she had no complaints or abnormalities in physical examination. The scar was small, cosmetic, hidden in the umbilicus. Patient was forwarded to radiotherapy for adjuvant treatment.

Keywords: Minimally invasive surgery; Single incision laparoscopy; Endometrium cancer

Introduction

In the last years, laparoscopic surgery has been proved as a safe and efficient method for treatment of abdominal and pelvic diseases [1]. Its advantages when compared with open surgery include better cosmetic results, less postoperative pain, and shorter recovery time [1,2]. Recent advances in laparoscopic surgery instruments made it possible to perform a pelvic or intra-abdominal surgery through a single incision, which scar will be hidden in the umbilicus [1,3].

Single-incision laparoscopic surgery (SIL) was developed with the aim of reducing the invasiveness of conventional laparoscopy (ranging from 3 to 5 incisions). This is a promising alternative to multiple ports surgery, as an effort to promote further advance in minimally invasive techniques. Such approach targets to mitigate patient post-operative pain, reduce hospital stay, promote earlier recovery from disease and better cosmetic results [1,3,4].

Endometrial carcinoma is the most commonly diagnosed gynecologic malignancy; almost every gynecologist will encounter it. Traditionally, surgical staging for endometrial cancer was accomplished with open laparotomy. Subsequent randomized, controlled trials have compared laparotomy with laparoscopy [5-7]. Although a vaginal approach is the preferred surgical approach for hysterectomy in women with benign disease, it precludes the thorough abdominal survey and lymphadenectomy that is recommended in the management of endometrial cancer. For women who are elderly, are obese, or have extensive comorbid conditions, the risks associated with surgical staging via an abdominal or laparoscopic approach may outweigh the potential benefits [8]. Despite potential benefits, there are no evidence or societies recommendations for the use of SIL to approach patients with endometrial cancer, nor in obese or non-obese patients.

A comprehensive search of the PubMed database was performed in April of 2014 using medical subject heading “minimally invasive surgery”; “single incision laparoscopy”; “endometrial cancer”.

Case Report

A 35 year old obese woman (Body Mass Index = 42) presented to our surgical gynecology clinic with persistent bleeding for two years and pelvic pain. Endometrial biopsy showed a endometrial adenocarcinoma type I. Echography showed an increased endometrial thickness (23 mm) and a uterine volume of 221,6 cc, without visible abnormalities in the ovaries. Magnetic resonance imaging (MRI) displayed hepatic steatosis, discreet hepatomegaly, colelitiasis, amorphous tissue inside the endometrial cavity featuring infiltrative lesion in the myometrium and bilateral inguinal lymphadenomegaly.

A SIL was performed using a SITRACC device, inserted under the skin and subcutaneous tissue, after direct visualization of the aponeurosis, through a longitudinal 4 cm incision in the umbilicus (Figure 1). After successful release of ovaries and round ligament, vaginal hysterectomy and bilateral oophorectomy was performed (Figure 2). An irregular endometrial surface occupying significant amount of the myometrium wall (at least 50%) was identified in the uterus examination (Figure 3).

The immediately post-operative course was uneventful. The patient was discharged from the hospital the day after surgery. The length of hospital stay was 24 hours. In postoperative visits, after one, two and four weeks after surgery, she had no complaints or abnormalities in physical examination. The scar was small, cosmetic, hidden in the umbilicus. Patient was forwarded to radiotherapy for adjuvant treatment.

Discussion

Endometrial cancer is the second most common gynecological...
cancer, with a low incidence in women younger than 40 years although, has a rapid growth in post menopause [9].

With the increase in obesity prevalence (body mass index > 30), a previously known risk factor, there is a direct impact in the incidence of this disease [10].

The initial approach in the management of early endometrial cancer is total hysterectomy and bilateral oophorectomy, traditionally performed by laparotomy. However, the laparoscopic approach has recently been introduced in cancer surgery with promising results [11]. In this particular case, considering endometrial invasion (> 50%), a pelvic lymphadenectomy should be performed. Considering the extension of the abdominal wall and the rates of complications, in this case, of laparotomy or even laparoscopy, we preferred to forward the patient to radiotherapy.

Vaginal hysterectomy has been demonstrated as an alternative technique by several authors in cases of early diagnosis of endometrial cancer in high risk surgery patients (obseiesses or with extensive comorbid conditions) [12-15].

The surgical time was similar in both procedures, with no evidence of increased morbidity in laparoscopic technique; however, the hospital stay was slightly higher in patients undergoing open surgery versus laparoscopy. Laparoscopic technique is considered a safe surgery in selected cases of endometrial cancer in obese patients, with lower rate of complications [16] and SIL was demonstrated to be an considerable option, mainly if considered cosmetic results and lower hospital stay.

References


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