Laparoscopic repair of an incarcerated femoral hernia

Yagan Pillay*

Department of General Surgery, Victoria Hospital, Prince Albert Parkland Health Region, 1521 6th Avenue West Prince Albert, SK S6V5K1, Canada

ABSTRACT

INTRODUCTION: A femoral hernia is a rare, acquired condition, which has been reported in less than 5% of all abdominal wall hernias, with a female to male ratio of 4:1. PRESENTATION OF CASE: We report a case in a female patient who had a previous open inguinal herniorrhaphy three years previously. She presented with right sided groin pain of one month duration. Ultrasound gave a differential diagnosis of a recurrent inguinal hernia or a femoral hernia. A transabdominal preperitoneal repair was performed and the patient made an uneventful recovery. DISCUSSION: Laparoscopic repair of a femoral hernia is still in its infancy and even though the outcomes are superior to an open repair, open surgery remains the standard of care. The decision to perform a laparoscopic trans abdominal preperitoneal (TAPP) repair was facilitated by the patient having previous open hernia surgery. The learning curve for laparoscopic femoral hernia repair is steep and requires great commitment from the surgeon. Once the learning curve has been breached this is a feasible method of surgical repair. This is demonstrated by the fact that this case report is from a rural hospital in Canada. CONCLUSION: Laparoscopic femoral hernia repair involves more time and specialized laparoscopic skills. The advantages are a lower recurrence rate and lower incidence of inguinodynia.

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1. Introduction

A femoral hernia while a rare occurrence can be problematic as they often present with symptoms of incarceration or strangulation. It is more common in females and the type of repair can be controversial. While open surgery remains the standard of care, laparoscopic surgery has lower recurrence rates and post operative pain (Fig. 1). This type of repair however has a steep learning curve and still presents a challenge for surgeons.

2. Case report

A 45 year old female presented with right groin pain of one month duration. There was no history of trauma. Past history: Open right inguinal herniorrhaphy three years previously. Clinical exam revealed a swelling in the right groin below the inguinal ligament (Fig. 2). The swelling could not be completely reduced. There was no erythema or fluctuance around the swelling. The rest of the abdom-
Inguinal examination was uneventful. The patient was well systemically (Fig. 3). Ultrasound of the pelvis showed a recurrent inguinal hernia or a differential diagnosis of a femoral hernia on the right side (Fig. 4). The patient was operated upon laparoscopically as she had...
3. Discussion

Femoral hernias are relatively uncommon (Fig. 6). They account for less than 5% of all hernias. Femoral hernias occur just below the inguinal ligament, when abdominal contents pass through a naturally occurring weakness called the femoral canal. They are more common in females because of the wider bone structure of the female pelvis by a ratio of 4:1 (female: male) [1]. Femoral hernias are more common in multiparous females as compared to non-parous females (Fig. 7). Approximately 60% of femoral hernias are found on the right, 30% on the left, and 10% bilaterally [2]. An enlarged femoral ring is thought to be the cause of the femoral hernia [7]. The lacuna vasorum increases in size as a person ages and is thought to be the reason for the increased incidence in the elderly [8]. Three approaches have been described for open surgery: Lockwood’s infra-inguinal approach, Lotheissen’s trans-inguinal approach and McEvedy’s high approach (Fig. 8). The infra-inguinal approach is the chosen method for elective repair while McEvedy’s approach is preferred in the emergency setting when strangulation is suspected as this approach allows better access for visualisation of bowel and possible resection if needed [3]. Laparoscopic repair involves the extraperitoneal (TEPP) or transabdominal preperitoneal (TAPP) approach (Fig. 9).

While there is good evidence for this method of repair it is still not the standard of care. This is in part due to the abnormally steep learning curve for surgeons (Fig. 10). It involves more time and specialised laparoscopic skills. The advantages are a lower recurrence rate and post operative pain [3, 5]. Once the learning curve has been breached this repair is eminently feasible as evidenced by the repair of this patient’s hernia in a rural hospital in Saskatchewan, Canada by a surgeon with no formal training in minimally invasive surgery.

Conflict of interests

Not applicable.

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Consent

I have consent from the patient. I submitted the incorrect form previously. That form was for another case report already published.

Research registry UIN is 554.

Author contribution

Yagan Pillay—only author.

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