Vaginal Vault Evisceration: A Rare but Serious Complication Following Laparoscopic Hysterectomy

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Case Report

A 68-year-old patient underwent a total laparoscopic hysterectomy and bilateral salpingo-oophrectomy for precancerous changes of the cervix. She had a history of two vaginal deliveries, no previous surgical or significant medical history. The operation was performed without complication and her initial post-operative recovery was unremarkable. She self-presented to the accident and emergency department six-weeks later with lower abdominal pain, bleeding and a mass protruding from the vagina. Preceding this she reported having had her first sexual encounter post-operatively and had attempted to open her bowels. She was haemodynamically stable. Examination revealed loops of small bowel through the introitus and a 5cm vaginal vault dehiscence, through which the bowel was reduced. A vaginal pack and indwelling urinary catheter were inserted. Her pain improved immediately following these measures. She was commenced on broad-spectrum intravenous antibiotics and taken for emergency surgery.

A vaginal-laparoscopic approach was taken, bowel integrity was assessed with no evidence of ischaemia or injury; and the vaginal vault was repaired using an interrupted, intra-corporeal method of a 1-0 non-absorbable braided suture. She was discharged home day 2 post-operatively.

Discussion

Although a rare complication of hysterectomy, we must be aware of the risk factors that increase the incidence of vaginal evisceration; as in the case discussed above (post-menopausal, sexual intercourse, straining to open bowels).

There is a debate as to whether women with risk factors should be informed of this specific complication pre- and/or post-operatively? We should consider advising women to postpone first intercourse until at least after the post-operative review appointment to ensure the vaginal vault is healing and consider discussion the risk and benefits of delaying this further in those women with multiple risk factors. The use of vaginal oestrogen may also be of benefit in improving vaginal tissue and post-operative follow up.

Prevention

One study has shown the risk of vaginal vault dehiscence is increased following total laparoscopic hysterectomy when compared with other routes of hysterectomy1-4. In light of this, some recommendations for prevention have been made1,4:

- Consider subtotal laparoscopic hysterectomy
- Use of laparoscopic scalpel for colpotomy to minimize thermal energy use
- Post-operative advice to delay intercourse
- Repair the vault vaginally

Risk factors

There are various risk factors for vaginal vault evisceration, as listed in Box 1. One review demonstrated that 10 out of 13 cases (or 77%) of vault dehiscence following total laparoscopic hysterectomy were precipitated by first sexual intercourse, even up to 4 months post-operatively.

Incidence

Retrospective reviews of vaginal evisceration following hysterectomy have shown an incidence of between 0.09-0.28% (1 in 1000). The median age of women presenting with vaginal evisceration after total laparoscopic hysterectomy was 44; with sexual intercourse being the most common precipitating factor.

Management

A multidisciplinary team approach should be used for the management of evisceration.

Surgical approaches for repair can be varied and will depend on the situation and surgical experience available. The most commonly used approach is abdominal; however vaginal, laparoscopic or combination of methods are valid alternatives. In spite of the approach taken, it is vital that there is the ability for complete inspection of the bowel, ensuring a resection is not indicated; pelvic cavity can be fully assessed and safe vault closure can be performed.

During the closure of the vaginal vault it should be inspected, and necrotic areas excised to expose healthy tissue. The repair should be performed using interrupted delayed absorbable suture and prophylactic antibiotics given with post-operative follow up.

References