

Rectal Perforation after Anal Intercourse

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Abstract

Introduction: Injuries during intercourse can range from superficial vaginal bleeding to severe ones that can lead to recto - vaginal fistulas and hemorrhage, which are usually related with rape and foreign body insertion.

Presentation of case: We report a 24-year old female with history old chronic constipation, who presented in our emergency department with acute abdominal pain 24 hours after consensual anal intercourse, while denying any sex toy, fisting or foreign body insertion. In surgery a Hartman procedure was performed, due to fecal peritonitis from a large rectal tear in the upper third of the rectum.

Discussion: The unique feature of this case is that the post coitus tear of the rectum caused by anal intercourse between two heterosexual adults resulted in intraperitoneal peritonitis, while the anal sphincters were left intact.

Conclusion: Sexual related traumas are taboo subjects as well as the cause of embarrassment and distress to most patients. It is vital that they are treated in a professional manner that respects their dignity, and that clinical care is aimed at correcting the situation as safely and painlessly as possible.

Keywords: Rectal perforation; Anal intercourse; Sexual related trauma

Introduction

Coitus-induced injuries are usually mild and associated with self-limited vaginal bleeding, thus do not always require medical attention. Primarily, these can range from mild superficial vaginal lacerations to more severe ones. Extreme cases regarding vaginal and rectal perforations that might lead to rectovaginal fistulas and severe hemorrhage have been reported and are mainly associated with rape and foreign body insertion [1,2]. Injuries of such severity resulting from consensual sexual intercourse are extremely rare. We present a rare case of extensive rectal rupture caused by anal intercourse, between two consenting heterosexual adults. The unique feature of this case is that the post-coitus tear in the upper third of the rectum during anal penetration caused intra-abdominal peritonitis, while the anal sphincters have been left intact.

Case Report

A 24-year-old female, nulliparous, presented to our emergency department with severe abdominal pain. She referred that the symptoms had begun 24 hours after consensual anal intercourse. She denied that any sex toy, fisting or any other foreign body was inserted either per vaginal or per rectum. The patient had no prior medical history or surgery, except for chronic constipation. On presentation, the patient had been hemodynamically stable, with temperature of 37.9 °C and tenderness on all quadrants. On examination of the perineum, no obvious external lacerations were noticed, while the digital rectal examination was positive for blood. The sphincter had normal tone and no palpable rectal wall defect was noticed.

Twelve hours prior to her admission to the hospital, the patient had undergone an abdominal CT scan in a private medical center, which

revealed the presence of fluid in the pelvic area and concentrated free air bubbles in close proximity to the rectosigmoid colon. The laboratory tests showed elevated inflammation markers (WBC: 18,1 *10³/mm³, NEU: 93,7%, CRP: 268 ng/ml).

After her admission to our clinic, a series of abdominal X-ray's with gastrographin enema followed. The examination had showed the presence of contrast liquid in the peritoneal cavity, outside of the lumen of the colon (Figure 1) and the patient was transferred urgently to the operating room.

During surgery, the patient was placed in a modified lithotomy position and an exploratory laparotomy was performed. The peritoneal cavity was thoroughly washed because of fecal peritonitis due to a 3 cm craniocaudally tear that was revealed in the antimesenteric border of the upper rectum (Figure 2). A Hartman procedure was performed, with resection of the torn rectum, the creation of colostomy on the left and a stapled rectal stump closure. A drain was placed on the pelvic floor.

The postoperative period was uncomplicated. The patient was discharged after 8 days. Three months later a reconstructive surgery of colostomy followed, without any complications.

Discussion

Sexual-related trauma is not a rare situation in the emergency departments. Most are minor injuries that are usually limited to the vaginal mucosa and skin, and manifest as self-limiting minimal vaginal bleeding, which do not require medical attention and can be resolved with minimal treatment.

More extensive and deeper vaginal lacerations or even perforations, associated mainly with forced or excessively vigorous intercourse, often



Figure 1: Gastrograhin outside the lumen and on paracolic left

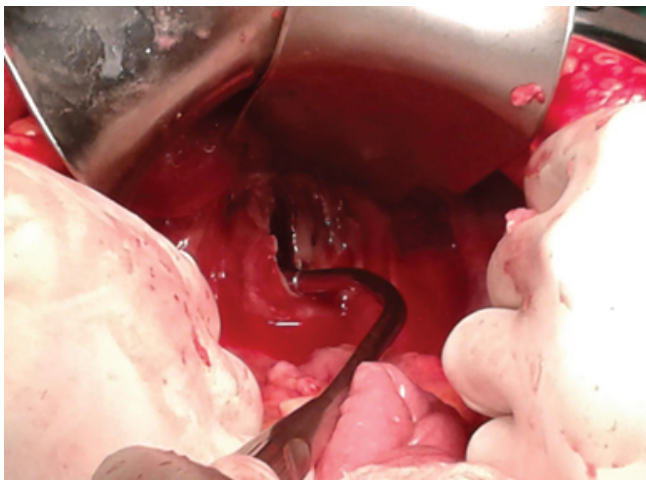


Figure 2: The rectal tear found intraoperatively

require immediate surgical treatment. Injuries of such severity could involve the rectum and even lead to the formation of a rectovaginal fistula can happen [2].

Fish (1956) reviewed about twenty-one published studies on vaginal injuries due to coitus, from different centers, and reported only one case of posterior vaginal wall perforation that extended to the rectum [3]. Muleta and Williams in Addis Ababa hospital of Ethiopia reported 91 cases of rectovaginal fistula sustained from coitus within marriage or rape that were successfully managed. Due to Ethiopian's tradition ladies were abused under the cover of marriage [4].

Risk factors to vaginal injury during consensual intercourse include first sexual experience, rape and vigorous penetration, the insertion of sex toys or other objects from either vagina or anus, fisting as sexual

practice, pregnancy, vaginal atrophy and spasm, previous operation or radiation therapy, disproportionate genitalia, and congenital anomalies, inflammatory bowel disease (especially Crohn's disease), operative trauma and rectal cancer [1-3,5,6].

Position during intercourse has been incriminated for playing major role in the coital injuries [7]. Among 21 studies reviewed by Fish, there was one case with acute rectovaginal fistula after intercourse in standing position [3]. During intercourse in missionary position with hyper flexed legs, the penis reaches the deepest penetration and dextrorotation of uterus leads to hyper distention of the vaginal wall, which may lead to rupture [8].

Post coital injuries of such severity are very rare. Our case is extremely uncommon because of extensive rectal rupture caused by anal sex between two consenting heterosexual adults that caused intrabdominal faecal peritonitis even though the anal sphincters were spared. Purwar et al. [9] reported a case of consensual intercourse leading to rectovaginal tear and Dr Nikolaos Symeonidis reported the first case of rectovaginal rupture resulting from consensual anal penetration without sphincter damage [10].

Patients presenting to the emergency department with post coital injury to genitalia should be questioned about their sexual and medical history. Bimanual vaginal and rectal digital examinations, CT abdomen with oral anal contrast are essential to determine the extent of the injury.

The management of post coitus trauma depends on the severity of the injury, the contamination of the peritoneal cavity and the general condition of the patient. The treatment of low rectal injuries is still on debate, whether simple suturing, diverting stoma or Hartman procedure is the optimal choice.

Simple suturing of vaginal mucosa and antibiotic coverage is usually sufficient to treat most coitus related genital injuries. As far as rectal injuries are concerned, stoma construction either through Hartman procedure or primary repair and loop prophylactic colostomy although unpleasant to the patient, is usually recommended, as it provides the repair with a better chance of healing and fewer complications post operatively [9,11].

Conclusion

Retained foreign bodies and rectal trauma are taboo subjects as well as the cause of embarrassment and distress to most patients. It is vital that they are treated in a professional manner that respects their dignity, and that clinical care is aimed at correcting the situation as safely and painlessly as possible.

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