Massive gastrointestinal bleeding due to rectovaginal fistula: A rare case report

Rektovajinal fistüle bağlı masif gastrointestinal kanama: Nadir bir olgu

Şehmus ÖLMEZ[1], Sevda BAŞ[2], Nevin AKÇAER ÖZTÜRK[1], Okan DİLEK[3], Bünyamin SARITAŞ[1]

University of Health Sciences, Adana City Training and Research Hospital, Departments of [1]Gastroenterology, [2]Gynecology and Obstetrics and [3]Radiology, Adana, Turkey

Rectovaginal fistula is usually observed due to obstetric traumas during giving birth, rectal or gynecologic malignities or after surgical therapy of malignant lesions or radiotherapy. Rectovaginal fistulas are not common in general surgery and gynecology clinics. However, these lesions are rarely seen during gastroenterology practice. In gastroenterology practice, we may face with rectovaginal fistula during Crohn's disease's course. These lesions deteriorate patients' quality of life and increase morbidity and mortality. Endoscopy may be used to detect the localization of fistula and may help to choose correct treatment modality. Endoscopy sometimes may also be used to treat rectovaginal fistula via endoclips or stents. Typical complaints for rectovaginal fistulas are air, gas, or mucus discharge from vagina. Dyspareunia, perineal pain, or recurrent vaginal infections may also be seen. Rectal bleeding is not a common complaint for rectovaginal fistulas. Herein we report a rare case with rectovaginal fistula presenting with massive rectal bleeding after debulking surgery for ovarian carcinoma.

Keywords: *Rectovaginal fistula, hematochezia, lower gastrointestinal bleeding*

Rektovajinal fistüller genellikle doğum sırasındaki obstetrik travmalara, rektal veya jinekolojik malignitelere bağlı, malign lezyonların cerrahi veya radyoterapisi sonrası görülür. Rektovajinal fistüllere en çok genel cerrahi ve jinekoloji kliniklerinde rastlanır. Bununla birlikte bu lezyonlar gastroenteroloji pratiğinde nadiren görülür. Gastroenteroloji kliniğinde rektovajinal fistüllerle Crohn hastalığı seyrinde karşılaşabiliriz. Bu lezyonlar hastaların yaşam kalitesini kötüleştirir, morbidite ve mortaliteyi arttırır. Endoskopi, fistül lokalizasyonunu saptamada ve doğru tedavi modalitesini seçmede yardımcı olabilir. Endoskopi bazen de endoklip veya stent kullanılarak tedavide kullanılabilir. Rektovajinal fistülün tipik şikayetleri vajinadan hava, gaz veya mukus gelmesidir. Disparöni, perineal ağrı veya rekürren vajinal enfeksiyonlar da görülebilir. Rektal kanama sık görülen bir bulgusu değildir. Burada over karsinomu nedeniyle debulking cerrahi operasyonu sonrası massif rektal kanama ile presente olan nadir bir rektovajinal fistül vakasını sunacağız.

Anahtar kelimeler: *Rektovajinal fistül, hematokezya, alt gastrointestinal sistem kanaması*

INTRODUCTION

Rectovaginal fistula (RVF) is abnormal tractus between rectum and vagina. Its prevalence is approximately 5% of all anorectal fistulas (1). Most of RVF occur after obstetric traumas during giving birth. Rectal and gynecologic malignities, radiotherapy, surgery, pelvic, perianal and urogenital infections, vaginal trauma and inflammatory bowel diseases (especially Crohn's disease) are other causes of RVF (2,3). Patients with RVF are frequently faced in gynecological and surgical clinics. However, patients with RVF due to inflammatory bowel diseases may be rarely observed in gastroenterology clinics.

In clinical practice of gastroenterology, massive lower gastrointestinal bleeding (LGB) is one of the urgent and important issue. However, bleeding due to rectovaginal fistula is an unexpected situation (3,4). Herein we present an extremely rare case of RVF leading to massive lower gastrointestinal bleeding and diagnosed by colonoscopy.

CASE REPORT

Seventy-years-old female patient admitted to emergency department with the complaints of poor general status, vaginal and rectal bleeding. She had previous history of ovarian carcinoma and debulking surgery (total abdominal hysterectomy, omentectomy and retroperitoneal lymph node dissection) 40 days ago. She also had chronic renal failure, atrial fibrillation, and hip surgery due to broken femoral neck. On physical examination she had pallor, blood pressure was 80/50 mmHg, pulse rate was 110 beats per minute and lethargic. Abdominal inspection revealed operation scar and on palpation mild sensitivity on lower abdomen. Rectal examination revealed hematochezia and vaginal bleeding on gynecologic examination. Laboratory values on admission were; white blood cells: 3800/mm^3, hemoglobin: 5.2 g/dl, hematocrit: 15%, platelets: 460000 /uL, glucose: 222 mg/dl (normal range: 74 - 106 mg/dl), urea: 100 mg/dl (normal range: 17-43 mg/dl), creatinine: 3.14 mg/dl (normal

Correspondence: Şehmus ÖLMEZ
University of Health Sciences, Adana City Training and Research Hospital, Department of Gastroenterology, Adana, Turkey • Phone: +90 322 455 90 00
Fax: +90 322 344 03 05 • E-mail: drsehmusolmez@gmail.com

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range: 0.51 - 0.95 mg/dl), albumin: 21.9 gr/L (normal range: 35 - 55 g/L), uric acid: 9.26 mg/dl (normal range: 2.6 - 6 mg/dl), calcium: 5 mg/dl (normal range: 8.8 - 10.6 mg/dl), C-reactive protein: 98 mg/L (normal range: 0-5 mg/L), lactate dehydrogenase: 312 U/L (normal range: 5 - 247 IU/ml) and normal values of aspartate aminotransferase, alanine aminotransferase and gamma-glutamyl transferase. She was hospitalized and erythrocyte infusion, fresh frozen plasma and platelet transfusion were given. After she was stabilized hemodynamically, her hematocrit values continued to get lower due to continuous vaginal and rectal bleeding. Rectoscopic examination revealed an orifice with a diameter of 3 - 4 cm, 10 - 12 cm distant to anal verge. Inside this orifice, bleeding source was found as bleeding, hyperemic, edematous mucosa (Figure 1A and 1B). Computed tomography (CT) revealed fistula tract between vagina and rectum with air densities in vagina (Figure 2A and 2B). Since she had continued to bleed and she had complex RVF, emergency laparotomy operation was performed. During the operation, low anterior resection and end colostomy operation was performed. In postoperative period her general status worsened, she had septic shock with hypotension and treated with vasopressor agents and wide spectrum antibiotics (meropenem, tigecycline, fluconazole and teicoplanin). She had no response to these treatments, and she died three weeks after operation. Informed consent has optained from the patients' relatives.

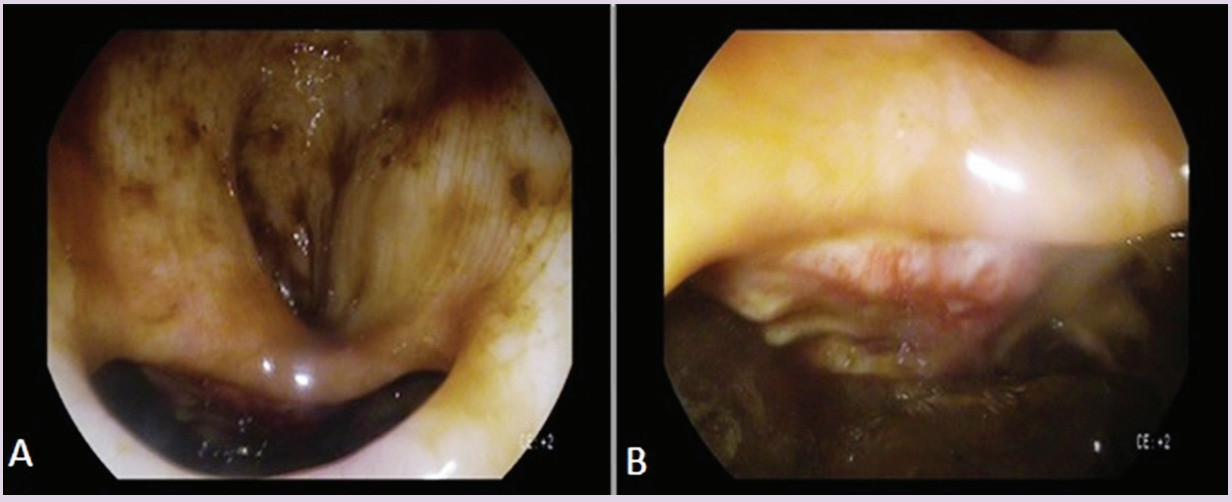

Figure 1. Colonoscopic view of rectovaginal fistula. **A)** Fistula orifice in rectum **B)** Bleeding hyperemic edematous vaginal mucosa with erosions through fistula orifice.

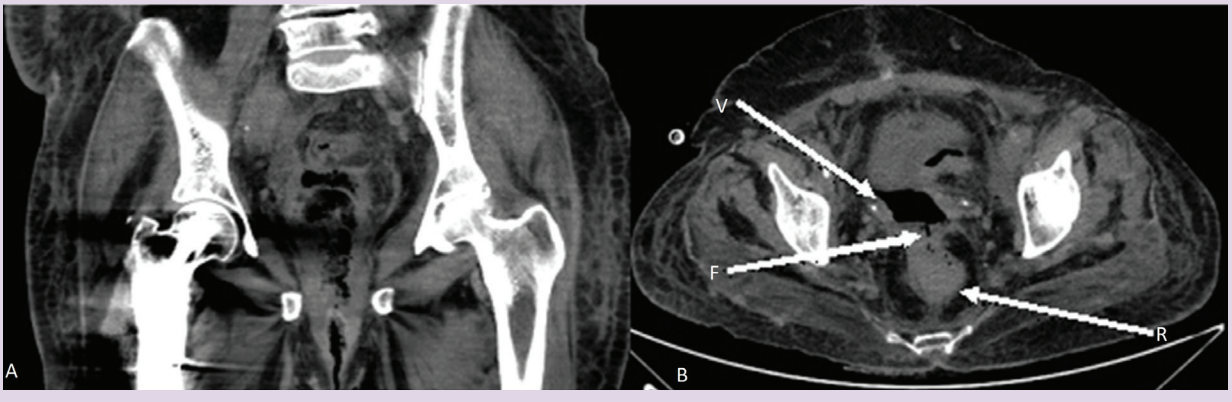

Figure 2. Computed tomography [Coronal **(A)** and axial **(B)** planes] revealed rectovaginal fistula tract and peri vaginal air densities.

(V: Vagina; F: Fistula tract between rectum and vagina; R: Rectum)

DISCUSSION

RVF are usually observed after obstetric injuries. It may be caused by local expansions of rectal, uterine, cervical, and vaginal malignities or radiotherapy of these lesions. Especially, development of RVF is higher in patients with previous history of hysterectomy and high dose radiotherapy (3).

RVF are classified into simple and complex fistulas according to their size and location. Simple RVF are with a diameter < 2.5 cm and generally located in lower and middle third part of vagina. These fistulas are observed due to trauma and infections. Complex fistulas have a diameter > 2.5 cm and are usually located in upper third part of vagina. Complex fistulas are typically associated with malignities, Crohn's disease and radiotherapy. The prevalence of complex fistulas is increased with advanced stage malignity, with a history of hysterectomy and high dose radiotherapy (3).

History and physical examination findings are very important in the diagnosis of rectovaginal fistula. Most of patients are diagnosed with history and physical examination. Patients typically complain of air, mucus, and gas discharge from vagina. Dyspareunia, perineal pain, and recurrent vaginal infections may be accompanying symptoms. These may lead to poor quality of life, psychological distress, and possible social isolation (2,5). Development of RVF in patients with gynecologic malignities also increase morbidity and mortality (5).

Patient's medical history is very important as well as patient's complaints. Previous surgery, radiotherapy and previous diseases must be questioned. Gynecologic examinations must be done (2,3). Magnetic resonance imaging (MRI), fluoroscopic evaluation, computed tomography (CT), endoscopic ultrasonography, colonoscopy or anoscopic examinations must be performed to detect accompanying abscess, fistula formation or malignancy and to confirm correct diagnosis. CT is not primary modality to evaluate fistula and to make diagnosis. MRI must be thought as primary modality to evaluate fistula (2,6). Although CT is not the first modality to evaluate fistulas, contrast material extending from rectum to vagina or gas traces towards vagina may be first signs of fistula formation (6). In our patient CT was performed and CT revealed fistula tract between rectum and vagina with air densities. It is very important to detect if anal sphincter function deteriorate or not to choose the most suitable treatment method (1,7). Endoscopic methods are used to locate fistula and its' size and condition of surrounding tissues. Endoscopy is also helpful to diagnose underlying inflammatory bowel disease such as Crohn's disease or malignant diseases (8,9).

Rectovaginal fistulas are generally treated with medical or surgical methods. Treatment of RVFs depends on their size, location, etiology, anal sphincter function, and the patient's overall health status. Before operation, anal sphincter function and accompanying Crohn's disease or abscess must be evaluated and patient's medical history, history of operations or radiotherapy and treatments for anal fissure must be reviewed. Treatment of complex fistulas are difficult and standard treatment includes surgery (1,6,8). Endoscopic treatment modalities such as over the scope clips, stent or endoscopic sutures may also be helpful in poor surgical candidates (5). If the RVF is small and the surrounding tissue is healthy (nonmalignant), endoscopic treatment can be tried. Endoscopic techniques may be used in patients with noncomplex RVFs (5,10). There are cases treated with these modalities (5,8,10,11). Surgical therapy was chosen in our patient cause, fistula size was large, it was complex and bleeding, therefore. Emergency laparotomy was performed, and low anterior resection and end colostomy was done. Her general status was not improved, even though we had given broad spectrum antibiotics, hypotension and sepsis were observed, and she did not response further medical therapy. She died after three weeks.

In conclusion, we have presented a case with RVF presented with massive lower gastrointestinal bleeding. Although we have not performed endoscopic treatment, it is a very rare case with complex RVF causing massive rectal bleeding. RVF should also be suspected in all patients with a history of gynecological malignancies.

Conflict of interest: *All authors declare no conflict of interest regarding this article.*

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