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# A rare cause of acute anal pain: strangulated hemorrhoids in a perianal fistula

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**A rare cause of acute anal pain: strangulated hemorrhoids in a perianal fistula**

BACKGROUND: *Hemorrhoidal disease is characterized by painless rectal bleeding and palpable swelling in the anus and very common in the society. In the presence of pain, it is called a complicated hemorrhoidal disease including conditions, such as thrombosed hemorrhoids, strangulation of the internal hemorrhoid, or accompanying anal fissure. Edema that develops as a result of impaired venous return is accepted as the main source of pathology in the development of strangulated internal hemorrhoidal disease, which is one of these complicated conditions.*
CASE PRESENTATION: *This case report shows that strangulated hemorrhoidal disease can also develop due to a mechanical cause as a result of incarceration of the hemorrhoid into the accompanying perianal fistula tract.*

KEY WORDS: Anorectal pain, Hemorrhoidal disease, Strangulated internal hemorrhoidal, Perianal fistula



## Introduction

Hemorrhoidal disease is a benign pathology characterized by a palpable mass and defecation disorder, often accompanied by painless bleeding in the anorectal region. Although the true incidence of hemorrhoidal disease is not precisely known, it is estimated that 45% of the society will consult a physician due to hemorrhoidal disease at some point in their lifetime. It is known that annually, an average of 120-150 thousand hemorrhoid operations are performed in the United States of America. When treatments performed in the outpatient setting are included in this evaluation, it can be stated that 4% of the total population require treatment due to hemorrhoidal disease. Therefore, this disease places a huge burden on the social security system [1].

Although the physiopathological mechanisms that explain the development of hemorrhoidal disease are not yet clearly known, the most accepted theory is the sliding anal cushion theory introduced by Thompson. According to this theory, the mechanisms involved in the emergence of the disease are not limited to changes in vascular dimension, but they are also related to the degeneration of ligaments providing attachment to the lateral muscle layer [1]. The main factors that play a role in the etiology of hemorrhoidal disease can be listed as chronic diarrhea, constipation, pregnancy, occupations requiring long-term standing, and chronic straining. These factors, which play a role in the etiology, are considered to cause high pressure in the hemorrhoidal veins and create predisposition to the development of the disease due to the absence of valves in the hemorrhoidal veins [1].
Hemorrhoidal disease is generally painless. The presence of pain brings to mind the possibility of the strangulation of the internal hemorrhoid and complicated hemorrhoidal diseases, such as thrombosed hemorrhoid or accompanying anal fissures. To our knowledge, this is the first case report in the literature to describe the surgical management of the incarceration of the internal hemorrhoids into the accompanying perianal fistula tract detected in a patient presenting with acute anal pain and a palpable mass in the anorectal region.

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## Case Report

A 41-year-old female patient presented to the general surgery outpatient clinic with the complaint of acute-onset anorectal pain and a palpable rectal mass. The proctological examination revealed unreduced hemorrhoids in the anorectal region. With a pre-diagnosis of the strangulation of grade 4 internal hemorrhoids, an examination and hemorrhoidectomy under general anesthesia were planned. The examination performed in the lithotomy position following general anesthesia showed internal hemorrhoids located at the 6 o'clock position incarcerated into the perianal fistula tract. Subsequently, an anal speculum was placed. The internal hemorrhoids were reduced. Perianal fistulotomy and curettage were performed. Then, hemorrhoidectomy was performed using an energy-based device. The operation was terminated by placing an antibiotic sponge in the anus. The operation steps are shown in Fig. 1. The patient was discharged on the first postoperative day without complications with the recommendations of sitz baths and antibiotherapy.

## Discussion

Hemorrhoidal disease is very common in the society. Although it usually presents with chronic symptoms in clinical practice, it can also cause acute symptoms, such as thrombosis, development of strangulation, or presence of an accompanying anal fissure. Conservative treatment methods can be used in the treatment of complicated hemorrhoidal diseases, as well as invasive treatment options, including hemorrhoidectomy and thrombectomy. The age of the patient, duration of disease, severity of pain, and type of hospital are the determining factors in the choice of treatment [2]. Although there is no guideline that provides standardization in the selection of treatment, most surgeons prefer conservative treatments [2,3].

Complicated hemorrhoidal diseases constitute an important part of anorectal emergencies. They are often not life-threatening and respond well to outpatient treatment methods. In order to successfully manage anorectal emergencies, two basic factors should be taken into consid-

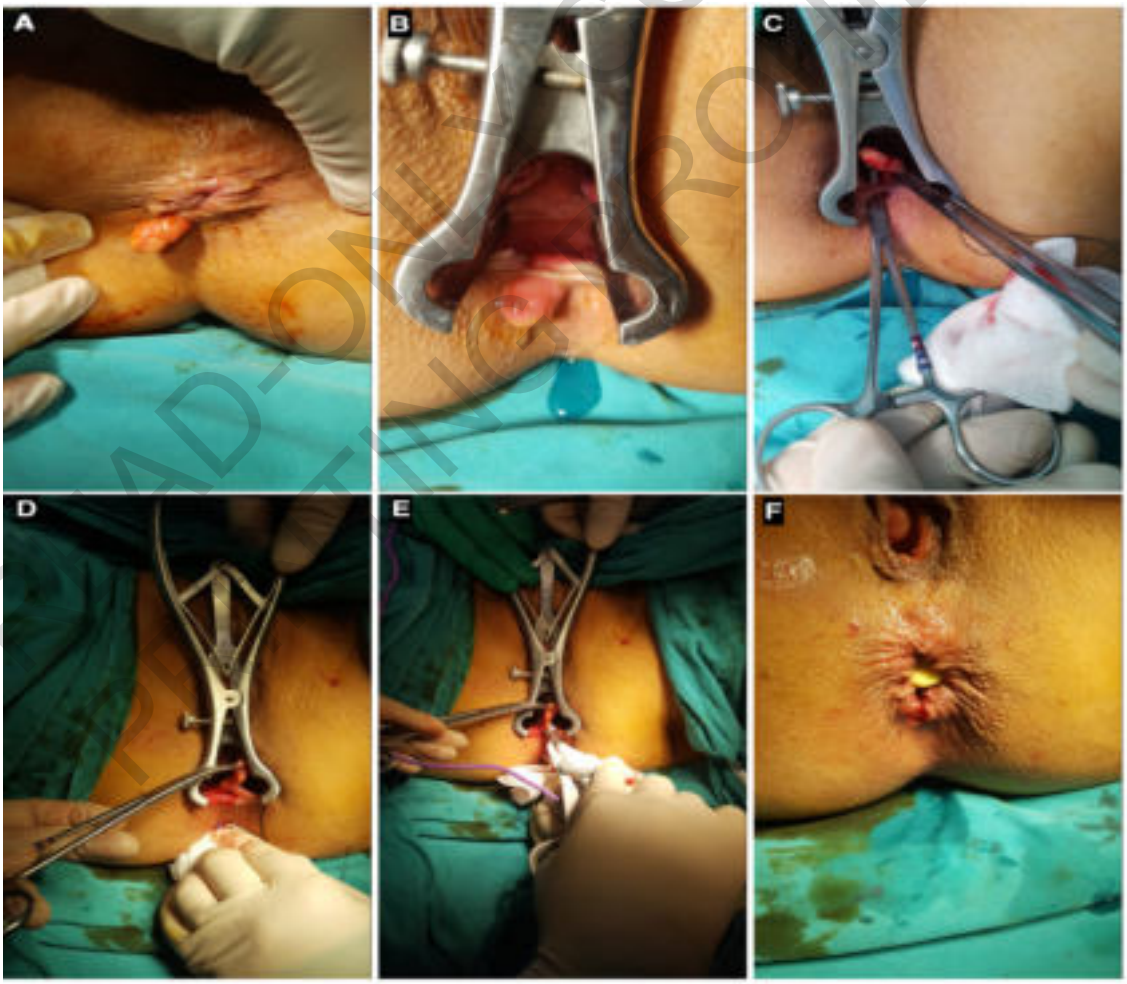


Fig. 1: Operative steps: A) Strangulation of grade 4 internal hemorrhoids; B) Demonstration of the incarceration of the hemorrhoids into the perianal fistula tract after speculum insertion; C) Reduction of the hemorrhoids; D) Image taken after fistulotomy and curettage; E) Hemorrhoidectomy performed using an energy-based device; F) Image taken after the completion of surgery.

eration when making a decision. First is the examination and imaging methods to be used to achieve an accurate diagnosis, and second is determination of cases in which to apply surgical treatment primarily. Most patients presenting with the complaint of acute pain in the anorectal region are hesitant to undergo a proctological examination, feeling embarrassed about the disease. This makes the examination difficult for both the physician and the patient [4].Therefore, the first anorectal examination is very important in making an accurate diagnosis.At this stage, an anoscopy constitutes an important part of proctological examination.In symptomatic patients evaluated to have normal anoscopy findings, a colonoscopic evaluation is widely used in some centers [5]. On the other hand, a proctological examination by anoscopy can be difficult in the presence of acute symptoms. In such cases, if sufficient information cannot be obtained with the examination performed under outpatient conditions, in line with the patient's anamnesis, further support should be obtained from radiological examinations if necessary, and even an examination under general anesthesia can be considered as an option [6]. Since hemorrhoidal disease may be accompanied by other proctological diseases, such as perianal fistula as in the current case, radiological examinations such as endoscopic ultrasound and pelvic MRI and an examination under general anesthesia can be considered primarily in case of suspicion of an accompanying proctological disease based on the patient's anamnesis.

Another important factor in the treatment of complicated hemorrhoidal diseases is the initial therapy method to be applied. Although there are conservative approaches and surgical treatment options that can be preferred initially, the tendency is mostly to favor conservative treatments [2,3]. The main determining factor in this selection is the belief that postoperative complications, such as systemic infection, bleeding, fecal incontinence, and anal stenosis will be more likely to occur after emergency hemorrhoidectomy [7]. However, in the studies in the literature examining emergency hemorrhoidectomy, no significant differences have been found in postoperative complications when compared with elective hemorrhoidectomy [8-10]. Furthermore, it has been reported that in emergency hemorrhoidectomy, patients have a faster recovery period, which shortens the length of hospital stay [8,9]. In addition, it is emphasized that after conservative treatment, patients should be re-hospitalized for elective surgery [9]. In light of all these findings, it can be stated that emergency hemorrhoidectomy is a procedure that can be safely applied in selected patients. It should not be forgotten that although the reason for strangulation in prolapsed internal hemorrhoids is edema that develops due to impaired venous return, as in our case, acute clinical manifestation can also be seen as a result of the incarceration of the hemorrhoids into the perianal fistula tract. In such cases, conservative treatment may lead to systemic infections rather than clinical improvement. As described earlier in this case report, it would be an appropriate approach to perform emergency hemorrhoidectomy as initial therapy in patients with proctological pathologies, such as perianal fistulae accompanying hemorrhoidal disease, who already have surgical indications.

## Conclusion

In conclusion, this case report showed that strangulated hemorrhoidal disease could also have a mechanical cause, such as incarceration of the hemorrhoid into the perianal fistula tract. Although the anamnesis and physical examination of the patient are guiding factors in the selection of treatment, emergency hemorrhoidectomy can be safely applied as initial therapy.


## Riassunto

La malattia emorroidaria è molto comune ed è caratterizzata da sanguinamenti rettali indolori e rigonfiamenti palpabili a livello dell'ano. Se compare dolore si manifestano vari tipi di complicazioni come la trombosi emorroidaria, lo strangolamento di emorroidi interne o per la presenza di ragadi anali. L'edema che consegue al difficoltoso drenaggio venoso è riconosciuto come la principale causa dello sviluppo della patologia con lo strangolamento che rappresenta una delle complicazioni.

Si riporta il caso di una strangolamento emorroidale dovuto anche a cause meccaniche per incarceramento delle emorroidi in una fistola perianale concomitante.


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