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Case Report

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Anal Necrosis - A Rare Entity Following Treatment with Herbal Supplements and Herbal Injections

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SUMMARY

Anal necrosis is an extremely rare and uncommon disease. It has a rich collateral blood supply. The most common etiology of anal necrosis in the elderly is ischemic secondary to atherosclerosis but anal necrosis in young with no predisposing factor is infrequent thus impeling the authors to write a report. A young middle aged male presented to our emergency department with pain and foul smelling discharge from the anal canal. There was prior history of anal fistula and a recent treatment with herbal medication. The patient underwent computed tomography and magnetic resonance imaging confirming anal canal necrosis with infection. The patient was in septic shock. Antibiotics and supportive volume resuscitation was carried out for managing sepsis. He also underwent prompt debridement with defunctioning loop colostomy. Early reconstruction of the anal canal spinchters and flap construction of the skin and subcutaneous tissue was done to prevent loss of anal canal spinchters control and further morbidity.

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Key Messages

Anal canal necrosis with herbal treatment is a very rare entity not reported till date. Anal canal necrosis is an extremely rare and septic shock is even more uncommon. Prompt recognition and early surgical debridement with sphincter complex repair can prevent further associated morbidity.

Introduction

Full thickness ischemic involvement of the anal canal is of unlikely occurence due to its robust blood supply [1]. Here we discuss a case of 39 year old male patient who presented with features suggestive of anal necrosis post herbal treatment for anal fistula. The authors here would like to emphasize on the prompt recognition of symptoms with diagnosis and surgical intervention thereby obviating patient morbidity and mortality.

Case History

A young middle aged male presented to our emergency department with complaints of fever, bleeding per rectum and foul smelling discharge from the anal canal since 4 days. Clinically, he was found to be in sepsis with vitals showing tachypnea, tachycardia and hypotension. Laboratory evaluation showed elevated WBC counts of 45,000 and hemoglobin of 9.5. Patient was then started on antibiotics and fluids and supportive care initiated. Patient was diagnosed with anal fistula 3 months back and had taken certain herbal supplements for treatment with some local instillation of herbal chemical agent.

On examination, perianal skin was disrupted and anal canal (Figure.1) could not be visualised as it was blood filled. Further investigation with computed tomography showed irregular discontinuity at the anorectal junction and anal canal with multiple hyperintensities suggestive of evolving abscess with involvement of external and internal anal sphincters. Magnetic resonance imaging confirmed above with defect in the internal and external sphincters with hematoma or evolving abscess involving the subcutaneous tissue (Figure.2).

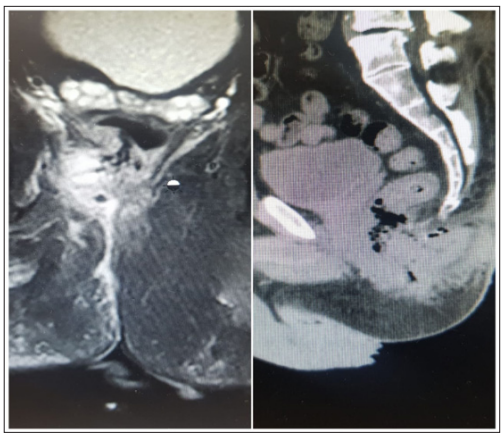

Figure 1

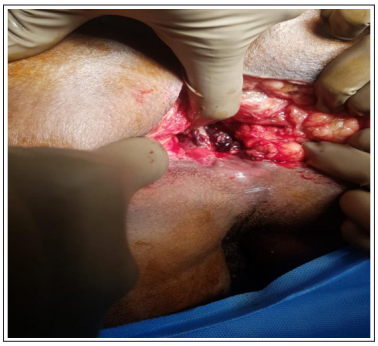

Figure 2

Treatment

Patient was taken up for surgery and was found to have necrotic anal canal and hence debridement was performed. Defunctioning loop colostomy was performed. On the fifth postoperative day, after examining the wound the patient underwent early reconstruction of the sphincters and perianal repair with flap reconstruction (Figure 3. Figure 4, Figure 5, Figure 6). Postoperative period was uneventful and the patient was discharged on the ninth hospital day.

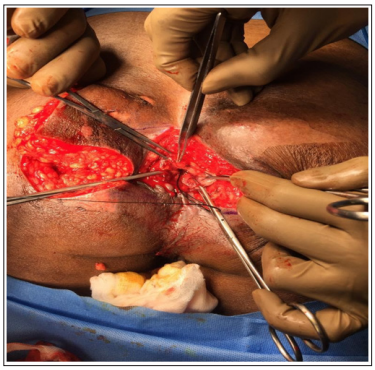

Figure 3

Figure 4

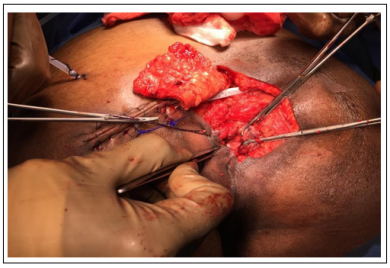

Figure 5

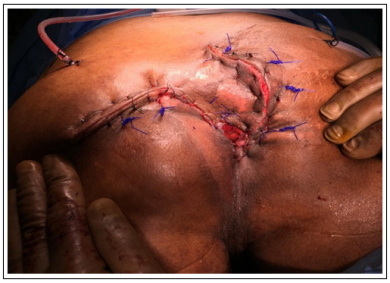

Figure 6

Discussion

Anal canal receives blood from three main trunks, superior rectal,middle rectal and inferior rectal arteries. These vessels interface between themselves along with the branches of the lumbar, internal iliac and inferior vesical arteries, thus establishing a vigorous blood reserve [2, 3].

Most common causes of anal necrosis include ischemic necrosis, infective etiology, post injection sclerotherapy, embolization during angiography, and some rare causes include paracetamol suppository abuse, SLE, post radiotherapy and phosphate enema application [4,5,6,7,8,9,10,11]. Risk factors include Diabetes mellitus, atherosclerotic disease, arterial hypertension or immunocompromised status 1. In our case, herbal supplements and injections used for sclerosis seem to be the probable etiology. However, the pathophysiology of necrosis due to herbal supplements is idiopathic and unknown. There are case reports of anal sepsis due to injection sclerotherapy. The pathogenesis of sclerotherpay causing anal necrosis is obliteration of the hemorrhoidal vascularity by inducing fibrosis and inflammation that afixes the hemorrhoids to the surrounding tissue, hence preventing the prolapse [12].

The clinical course can be nonspecific, with symptoms ranging from dull perianal pain to severe abdominal pain. Occasional bleeding and in severe cases as in our patient sloughing of perianal tissue with signs of sepsis needing early surgical intervention and intensive care is not very uncommon [13]. The diagnosis is a combination of clinical and radiological investigation. Computed tomography and magnetic resonance imaging provide useful information in determining the extent of sepsis and the damage that is caused to the pelvic floor and sphincter mechanism. Early recognition of sepsis and management of septic shock with prompt surgical debridement is of paramount importance to obtain source control.

Immediate surgical debridement with defunctioning loop colostomy was performed to prevent further soilage of the area. Further bedside debridement and wound care was provided. When the wound was clean, the patient underwent primary repair of the anal canal spinchters and flap reconstruction of the area to cover the perianal tissue loss. Early intervention and repair of the anal spinchter mechanism is very critical as any delay will lead to retraction , fibrosis and thinning out of spinchter complex. Perianal skin flap reconstruction was also performed as there was loss of skin and subcutaneous tissue. Rotation flaps were mobilized from the gluteal area and reconstruction was performed.

Spontaneous anal necrosis due to herbal supplements is an apparently unknown clinical entity, as no similar case has been discussed in the literature in the past. This case underlines the importance of clinical evaluation and early surgical intervention to prevent morbidity and mortality associated with perianal sepsis. Prompt recognition of the disease and evaluation of the extent of disease with early surgical intervention and early definitive therapy plays a vital role in improving patient outcome.

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