

## **Anal Paracoccidioidomycosis. An Unusual Presentation: A Case Report**

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### **Abstract**

This article is a Case report about one patient who chief complaint with anal ulcer and anal pain, this patient underwent exploration under anesthesia with biopsy anal canal and result of biopsy with Grocott coloration was Anal Paracoccidioidomycosis.

**Keywords:** *Paracoccidioidomycosis; Anorectal Disease; Anal Ulceration*

### **Introduction**

Paracoccidioidomycosis is a granulomatous systemic disease caused by the fungus *Paracoccidioides brasiliensis* [1]. It presents geographic distribution limited to Latin America, with higher incidence observed in Brazil, Colombia, Argentina and Venezuela, being the countries with the highest numbers of reported cases, where its prevalence clinical and epidemiological characteristics vary according to the region of these countries [2,3]. An estimated 10 million people have been infected with this fungus to date [4]. This disease is acquired through the inhalation of the fungus, which enters the respiratory tract and spreads via lymphatic or hematogenous to various secondary sites. This disease is usually asymptomatic and depending on the patient's immune status, however some lesions stay inactive or residual may contain fungus for years [5]. The affected areas are the skin, mucous membranes and lungs, where the lungs are the main organs affected, in 42 to 89.4% of the cases, intestinal involvement present ranges from 2.7 to 28.4% and anal lesions are present in 1.3 to 2.4% of the patients [6,7]. It remains unclear the pathogenesis of anal lesions [7]. In this study we report an unusual case, initially evaluated because of an anal ulceration, where the biopsy of anal lesion, confirmed anal paracoccidioidomycosis.

### **Case Report**

The patient is a 21 year old male, was transferred from rural zone to Merida city (Venezuela), with perianal nodulation for two months, initially painless, which coursed into local abscess and spontaneous drainage of purulent secretion, being painful and ulcerated lesion, with two months of evolution. Initially the lesions were itchy, but had later become painful and weight loss in the two months prior to the examination. Anorectal examination was performed with the patient in the left lateral position without previous anorectal preparation. At presentation, the lesions were confluent, erythematous and malodorous discharge, with three fistulous orifices in the intergluteal fold, with exit of purulent secretion anal pain (Figure 1).



Figure 1: Trayect fistulosa with perineal secretion.

The patient's examination determined the presence of a plane ulcerated lesion with irregular borders and fibrinous exudates, spreading since the pectineal line until anterior and left perineal skin. Digital examination revealed low sphincter tone and low resting tone at digital rectal examination. Endorectal ultrasound revealed fistula tracks were visualized as hypoechoic lesions. The internal fistula opening was identified as a hypoechoic area in the intersphincteric plane. Ultrasonic scanning was started approximately 20 seconds after instillation of H<sub>2</sub>O<sub>2</sub> to allow time for bubble release. The contrast study was usually performed with infusion of a small amount (0.5 - 3.0 mL) of H<sub>2</sub>O<sub>2</sub>. Images were acquired with a 10-MHz, 360°, rotating endoprobe (Type 2050, BK Medical, Herlev, Denmark, Figure 2a and 2b).

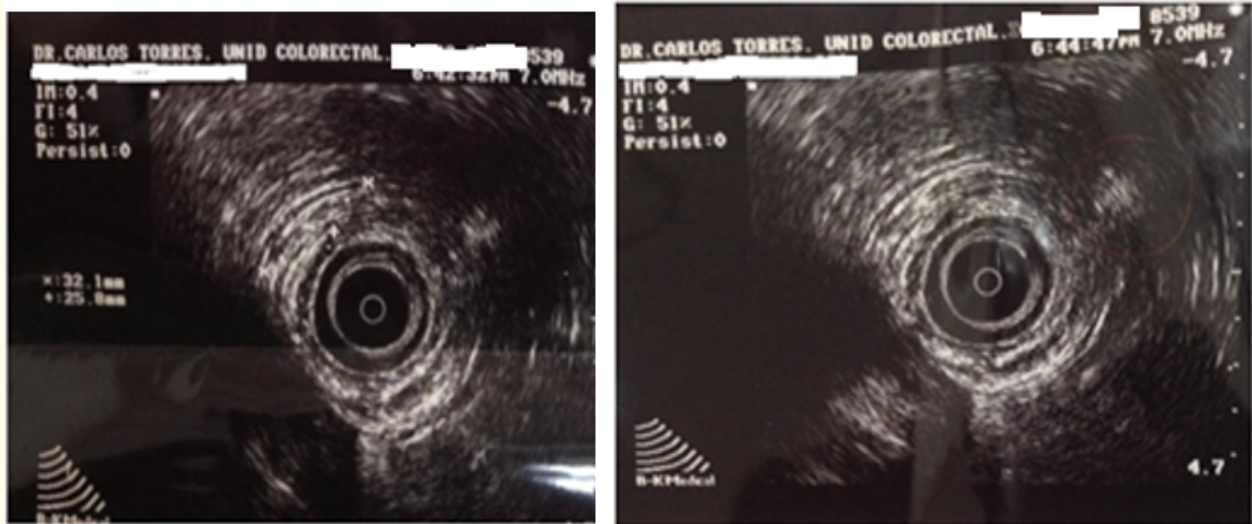
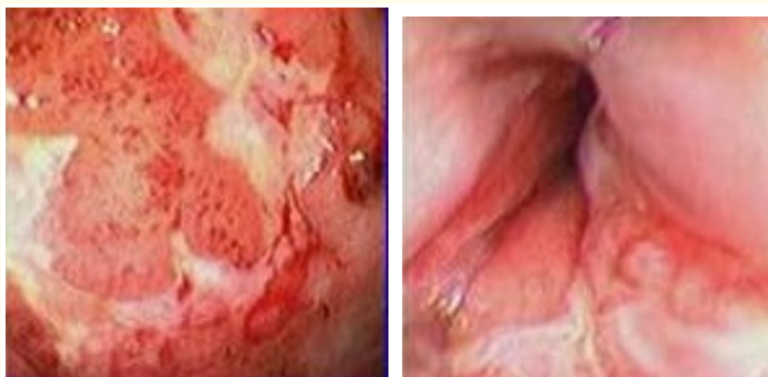
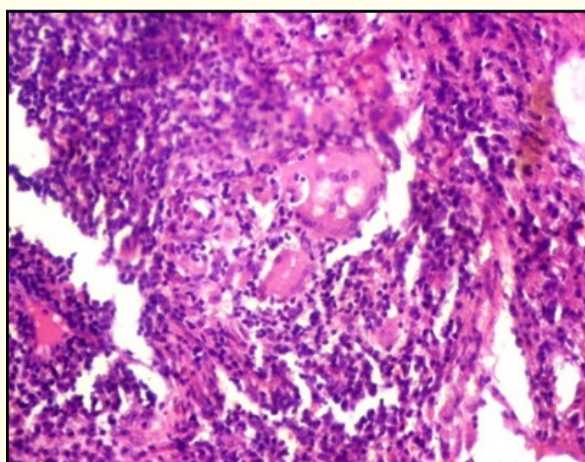


Figure 2a: Hypoechoic fistula tract is seen at figure 2b: The fistula tract became hypoechoic due to the pre-enhanced scan gas generated from H<sub>2</sub>O<sub>2</sub>.

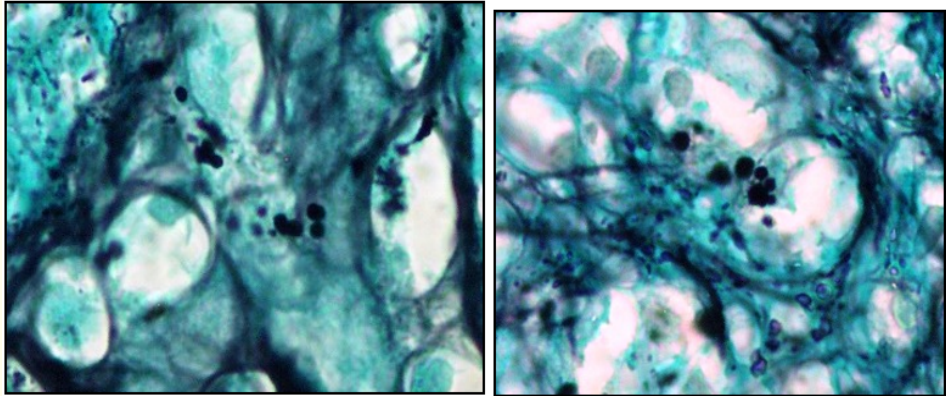
Colonoscopy showed ulceration with erythema flat edges in low rectum (Figure 3). The examination was performed under spinal anesthesia and jack knife position and partial fistulotomy was performed and multiple biopsies were taken from fistula holes and presence of ulcers in the lower rectum, covered by fibrin. We found no evidence of parasitic or amoebic infection, including leishmaniasis. Tests for syphilis (Venereal Disease Research Laboratory), human immunodeficiency Histopathological examination showed small granulomatous formations without central necrosis, consisting of epithelioid cells and abundant multinucleated giant cells with the presence of rounded intracytoplasmic structures with central necrosis (arrows). Hematoxylin-Eosin 40X (Figure 4). virus and tuberculosis (purified protein derivative test) were negative. Subsequently proceeded to perform other coloration tecnic with methenamine silver stain (Grocott) revealed evidence of fungal pathogens of large spores with multiple buds of variable size compatible with the presence of Paracoccidioidomycosis brasiliensis (arrows) Grocott 100X (Figure 5).



**Figure 3:** Colonoscopy low rectum.



**Figure 4:** Structures with central necrosis (arrows). Hematoxylin-Eosin (40X).



**Figure 5:** Large spores with multiple buds of variable size compatible with the presence of *Paracoccidioidomycosis brasiliensis* (arrows Grocott 100X).

The postoperative course presented multiple liquid evacuations with resistance to treatment, persistence of open wounds with slow cicatrization process (Figure 6).



**Figure 6:** Persistent open wound after surgery.

### Discussion and Conclusion

Lutz in 1908 was first described this disease [8], is an infection is caused by inhaling particles of the fungus *Paracoccidioides brasiliensis*. The activities that involve direct contact with soil contaminated with this fungus represents the main risk factor inhaled during agriculture related activities are at a particularly high risk for infection. The prevalence of this disease occurs in the first two decades of life, with a higher incidence between 10 and 20 years [7,9]. Paracoccidioidomycosis clinically appears in two different forms: an acute

-subacute juvenile form and a chronic adult form with 90% of cases, which predominantly affecting men young. In most cases, the disease affects several organs [7,9,10]. A single-focal affectation corresponds to exceptional cases. The skin, mucous membranes and lungs are the organs most affected by the fungus [7,9-11]. Anal Paracoccidioidomycosis is a unusual disease, with few reports in current literature, all of them mainly in Brazil [12]. The disease by the paracoccidioidomycosis is characterized by ulcerated lesions hardened with elevated edges, with a granulomatous background, with associated pain and purulent or bloody secretion, which frequently affects the region of the anus [12-14]. The differential diagnosis should include the granulomatous lesion such as tuberculosis, Crohn's disease, venereal lymphogranuloma, sarcoidosis, amebiasis, actinomycosis and pyogenic granuloma [12-14]. In this study, the authors observed that the first symptom was associated with the anorectal region. In conclusion, this disease is a uncommon in our city, however, depending on the patient clinical presentation, endemic zone rural, and fungal infections should be considered. Therefore it is the ulceration anal is part of a disseminated disease, therefore this case can be classified in a chronic multifocal form of paracoccidioidomycosis [9]. After confirmation of the diagnosis, the patient refused to received treatment for the disease.

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