

## CASE REPORT

# Use of botulinum A toxin for proctalgia fugax—a case report of successful treatment

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## Abstract

Proctalgia fugax is considered as intermittent anal pain of unknown etiology; a variety of treatments have been used, without, however, permanent results. Injection of botulinum A toxin is recently suggested as an alternative option. We present the case of a woman presenting proctalgia fugax that was untreatable through other current forms of treatment. After two administrations of botulinum A toxin, 80 units and 100 units each, the patient remained asymptomatic on 8-month follow-up control. Botulinum A toxin injection can reduce internal anal sphincter pressure, leading to relief of symptoms, and seems a promising option with minimal morbidity in cases on proctalgia fugax that does not respond to other current treatments.

## INTRODUCTION

Proctalgia fugax is defined as functional and recurrent episodes of anorectal pain, lasting from of seconds to minutes, with an overall duration of more than 3 months, according to Rome III diagnostic criteria. Its prevalence ranges from 4% to 18% in the general population [1].

Etiology of this condition is still unknown, but internal anal sphincter spasm is suggested to be implicated, while no organic cause appears. Therefore, treatment is usually based on techniques that reduce the sphincter's pressure [2]. Conservative treatment is still the main option, without, however, presenting permanent curative results.

We present a case of a female patient that was treated successfully with two doses of botulinum toxin, while other forms of management did not show any effectiveness, following the SCARE criteria [3].

## CASE REPORT

A 76-year-old woman was presented in the surgical out-patient department of our center complaining about severe and debilitating intermittent perianal pain during the previous 6 months. Her clinical history was free of perianal diseases and no other localized organic disorders were present. Rectoscopy, computed tomography scan and magnetic resonance imaging were also negative for any other pathologic conditions. Therefore, proctalgia fugax was diagnosed, according to Rome III criteria for functional anorectal pain.

Conservative measures have been initially used in order to manage the patient's symptoms, from warm baths, analgesics, spasmolytics and relaxation techniques, to inhaled salbutamol, biofeedback and psychiatric interventions; however, none of them led to any improvement of the condition. After detailed information and patient's consent, injection of botulinum A

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toxin had been suggested as an option for proctalgia treatment. Eighty units of botulinum A toxin were administered locally, in order to reduce the internal anal sphincter pressure. Injections in the internal anal sphincter were done in eight sites (first, third, sixth and ninth hour, as well as in every middle point in between them). The intervention was realized as a 1-day treatment and the patient presented complete relief of her symptoms 2 days later.

On follow-up control, 3 months later, she mentioned mild pain recurrence that was treated with a second local administration of 100U botulinum toxin, with the same technique. Eight months after the second intervention, the patient remains completely free of symptoms and not any episode of perianal pain has occurred.

## DISCUSSION

Proctalgia fugax is still a condition of unclear pathogenesis that leads to impaired quality of life and increased healthcare utilization [4]. Evaluation of this functional disorder can be done through manometry and imaging [5]; conservative measures, such as hip baths, benzodiazepines, oral diltiazem, topic glyceryl nitrate, nerve block and salbutamol remain the most usual options of treatment, without, however, proven effectiveness through randomized trials [6, 7]. Only limited research has also been realized on the use of botulinum in patients suffering from this condition [2].

Botulinum A toxin inhibits acetylcholine release from the presynaptic neuronal end plates, and is also an inhibitor of substance P and glutamate. Other than applications in dermatology, recent data show favorable results in cases of eczema, salivary fistulas, intrinsic rhinitis and blepharospasm; additionally, in proctology, botulinum toxin can be used as an analgesic for proctalgia fugax, as well as in cases of pain after hemorrhoidectomy [8]. Injection of botulinum A toxin does not present general side effects, but rather local ones, including hematomas and transient paresis of the neighboring muscles [9].

In our case, no side effects were present and no hospital stay was needed. Mild recurrence of the pain was present on 3-month follow-up, which was successfully managed through a second botulinum treatment.

## CONCLUSION

Conservative measures are still the main form of treating proctalgia fugax. Little evidence on botulinum toxin and its involvement in the management of this condition has been recorded so far; however, we recommend that it could be considered an option of high rate of healing and low recurrence, even in cases that seem untreatable with other existing measures. Further future studies in a larger scale of patients are needed.

## CONFLICT OF INTEREST STATEMENT

None declared.

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