



# Surgical & Cosmetic Dermatology

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## Non-surgical management of ectropion using hyaluronic acid gel with cannula injection

Manejo não cirúrgico de ectrópio pela aplicação de ácido hialurônico com cânula

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### ABSTRACT

The treatment of eyelid ectropion remains challenging. Surgical approaches are more widely used, but techniques using hyaluronic acid have shown increasing promise. This article describes a novel technique for hyaluronic acid injection through a cannula to correct severe cicatricial ectropion secondary to lamellar ichthyosis. Despite the need for further studies, the procedure proved to be safe and easily reproducible.

**Keywords:** Ectropion; Hyaluronic Acid; Cannula

### RESUMO

O tratamento do ectrópio palpebral continua a ser um desafio. As abordagens cirúrgicas ainda são mais utilizadas, mas as técnicas com ácido hialurônico têm se mostrado cada vez mais promissoras. Este artigo descreve uma técnica inédita de injeção de ácido hialurônico através de uma cânula para correção de ectrópio cicatricial severo secundário à ictiose lamelar. Apesar de necessitar mais estudos, o procedimento mostrou-se seguro e facilmente reproduzível.

**Palavras-chave:** Ectrópio; Ácido Hialurônico; Cânula

### How do I do it?

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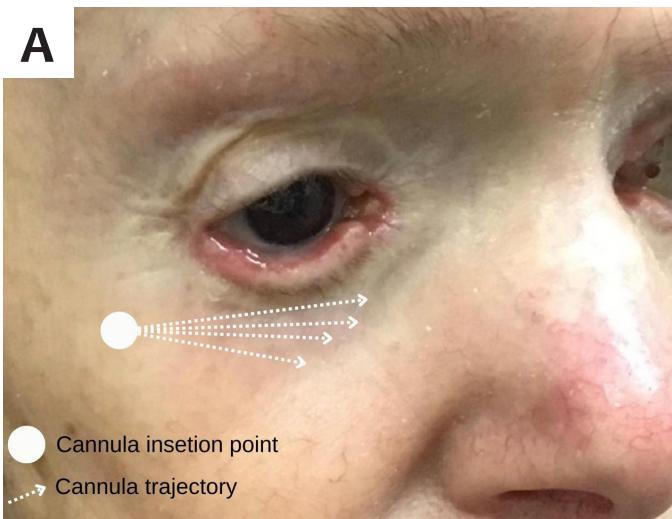
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## INTRODUCTION

Ectropion is an eyelid malposition with exposure of the ocular surface. It primarily affects the lower eyelid and can lead to several ocular complications.<sup>1</sup> In cicatricial ectropion (CE), contracture of the skin and subcutaneous tissue shortens the anterior lamella, resulting in eyelid eversion.<sup>2,3</sup> When left untreated, ectropion may cause permanent corneal damage and potentially lead to blindness.<sup>4,5</sup> Currently, in addition to surgical correction, there has been a trend toward minimally invasive approaches, such as the use of hyaluronic acid (HA) fillers.

The present case describes a patient with lamellar ichthyosis and bilateral ectropion, with one eye already affected by secondary corneal ulcer and amaurosis.<sup>6</sup> In an attempt to improve the ectropion and prevent progression to complete blindness, HA was injected using a cannula. This novel technique has never been described in the literature before.



**FIGURE 1:** A - Ectropion correction technique using hyaluronic acid with a cannula. Demonstration of the cannula entry point and trajectory in the correction of ectropion. B - Eyelid volumization with hyaluronic acid. Hyaluronic acid acting as tissue expander to reduce ectropion

## CASE PRESENTATION

A 67-year-old woman had lamellar ichthyosis, bilateral ectropion, a left ocular prosthesis, and severely impaired vision in the right eye due to conjunctival and corneal exposure.

The goal was to use HA for tissue expansion to elevate the inferior tarsal border and facilitate eyelid closure, thereby minimizing ocular sequelae. For safety and to ensure a more homogeneous distribution of the acid, a cannula was preferred over a needle.

The procedure consisted of introducing a 22G rigid cannula into the plane between the skin and orbicularis oculi muscle, followed by retrograde injection of 1 mL of medium G prime HA filler (20 mg/mL) into the anterior lamella along the lower eyelid (Figure 1). The cannula advanced easily within the supramuscular plane, causing minimal discomfort, and no bleeding or ecchymosis was observed. Immediate expansion of the



**FIGURE 2** A - Patient with lamellar ichthyosis and bilateral ectropion. Blindness in the left eye and severely impaired vision in the right eye due to conjunctival and corneal exposure. B - Immediate expansion of the lower eyelid after hyaluronic acid injection. Evident overcorrection with bluish discoloration caused by the Tyndall effect, an expected and desirable response for tissue expansion

lower eyelid was evident, characterized as overcorrection with a bluish discoloration caused by the Tyndall effect—an expected and desirable response for achieving tissue expansion (Figure 2).

The primary goal of this procedure is not simply aesthetic improvement, but rather to prevent the progression of corneal ulcers secondary to ectropion. Therefore, intentional overcorrection is part of the therapeutic strategy. The patient has undergone annual HA injections using a cannula for 5 years, with no recurrence of corneal ulcers during follow-up.

## DISCUSSION

Surgical correction remains the most common treatment for CE; however, HA injection techniques have proven to be a viable alternative, capable of expanding the anterior lamellar region, stimulating neocollagenesis, and improving eyelid apposition.

tion.<sup>1</sup> Moreover, HA injection is minimally invasive and has a low complication risk.<sup>2</sup> Patient satisfaction with aesthetic outcomes is similar to that of surgical correction.<sup>2,3</sup>

Potential complications of HA injection include hematoma, edema, uneven filler distribution, overcorrection, and vascular occlusion.<sup>4</sup> The use of a 22G cannula reduces the risk of arterial and venous ischemia, particularly relevant given the vascular anatomy of the lower eyelid—a region at increased risk for ischemic complications.<sup>4</sup> Cannulas require a single entry point, decreasing the likelihood of hematoma, ecchymosis, and discomfort.

The use of a cannula to correct CE with HA injections has proven to be a safe, simple, and effective technique. Nevertheless, further prospective comparative studies are required to validate its widespread application. ●

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