Case Report

Artigo 12

Bleomycin in refractory giant keloids: a new treatment alternative

Bleomicina para queloide rebelde e gigante – nova opção de tratamento

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ABSTRACT

Keloids were first described several centuries ago, however their handling and treatment are still often inadequate. A number of treatments are available, such as intralesional corticotherapy and compressive therapy. The case of a 24-year-old female patient with a 5-year history of keloids in the ear lobules, with recurrence after treatment, is reported. She experienced a full regression of the lesions (for 2 years) after surgical reduction followed by intralesional bleomycin injections. Bleomycin is emerging as a therapeutic option with few side effects and lasting results for keloids that are unresponsive to conventional treatments.

Keywords: bleomycin; cicatrix, hypertrophic; keloid.

RESUMO

Queloide é afecção descrita há alguns séculos, porém ainda hoje seu manejo e terapia apresentam resultados muitas vezes insuficientes. Há, atualmente, diversos tratamentos, como corticoterapia intralesional e terapia compressiva, entre outras. Relata-se o caso de paciente com histórico de queloides nos lóbulos das orelhas há cinco anos, com evolução recidivante após as terapêuticas empregadas. Utilizando injeções intralesionais de bleomicina após redução cirúrgica, houve regressão completa das lesões por dois anos. A bleomicina tem-se tornado opção terapêutica para queloides refratários aos tratamentos convencionais com poucos efeitos colaterais e resposta duradoura.

Palavras-chave: *bleomicina; cicatriz hipertrófica; queloide.*

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INTRODUCTION

Cutaneous healing is a complex process that results in the formation of new tissue that repairs the skin. Normal healing in healthy individuals usually results in a scar with a good aesthetic appearance and maintenance of functional properties. [1] Any interference in the healing process can lead to the formation of poor quality, wide and pigmented scarring. Among cicatricial affections, hypertrophic scars and keloids stand out. They are caused by a hyperproliferation of fibroblasts, which results in the accumulation of extracellular matrix and, more importantly, in the excessive production of collagen.[1-3] Keloids are elevated, shiny, itchy or painful lesions located in the dermis. They are differentiated from a hypertrophic scar by their location (beyond the limits of the original wound, encroaching onto the normal adjacent skin), continuous growth over time, absence of spontaneous regression, recurrence after excision, and personal or family history.[4] This paper describes the case of a patient with giant lesions that were resistant to conventional treatments such as intralesional injections of corticosteroids and radiotherapy.

CASE REPORT

A 24-year-old white female patient presented, for 5 years, extensive keloids in the right (R) and left (L) earlobes, as well as the right jawline. (Figures 1, 2 and 3). The keloids originated from earring holes. The lesions were unattractive, presented ulcerations and a strong smell, and caused great discomfort to the patient.

The patient had already undergone three previous treatments. The first two involved the exeresis of the lesions followed by infiltration of corticosteroid at monthly intervals. The third treatment also consisted of exeresis of the lesions, followed by 5 subsequent radiotherapy sessions and the use of compression garments. The lesions worsened; their dimensions increased approximately three fold.

The proposed treatment comprised the surgical reduction of the keloids combined with bleomycin injections. For the surgical reduction, different techniques were employed, on each side (R and L). In the R earlobe and jawline keloids, incisions within the keloids' margins, and exeresis of the tumorous mass were carried out, followed by suture. In the L ear lesion, the procedure consisted of a sub-total tangential excision (shaving) of the keloid, which healed by secondary intention.

Ten bleomycin (15 u diluted in 5 ml of 0.9% saline solution) injection sessions were carried out, with an average of 0.04 ml per session, with six infiltrations in monthly intervals, two in quarterly intervals, and the last two in six-month intervals. The treatment started in January 2007 and ended in January 2009.

There was an excellent response, with outstanding aesthetic results (Figures 4, 5 and 6). Nevertheless, in the keloid in which the exeresis and suture were carried out, the scar became slightly infiltrated, while in the one in which the shaving tech-

Figure 1 - Keloids before treatment

Figure 2 - R keloid profile

Figure 3 - L keloid profile

Figure 4 - Close view after exeresis and bleomycin

Figure 5 - L side after shaving and bleomycin

Figure 6 - Final outcome

nique was used, the scar softened and became less noticeable, suggesting that this technique would be ideal for reducing keloids. The patient was followed up for 30 months; the scars remained stable and presented no signs of recurrence.

DISCUSSION

Bleomycin is a widely used substance in oncology. It is a mixture of cytotoxic polypeptides with antibacterial, antiviral and antitumoral properties. It was isolated from a soil fungus, *Streptomyces verticillus*, in the beginning of the 1960s.[3] While its action mechanism in the skin remains unclear, there is evidence that it increases the local tumor necrosis factor (TNF).[2] The side effects are minimal, with hyperpigmentation and atrophy described in some patients.[1,4] Due to the high selectivity for epithelial cells, there are reports of using intralesional bleomycin to treat certain skin disorders, such as warts, Kaposi's sarcoma, leukoplakia, hemangiomas and lymphangiomas. [1,5] The results were satisfactory and promising for all these lesions; however, due to the limited number of patients studied, the method cannot be considered to be a routine treatment until new elements corroborate these findings. The literature has presented good results for using bleomycin to treat keloids, suggesting it is an interesting option among the existing alternatives. Nevertheless, more extensive and precisely controlled studies are necessary to confirm this fact. ●

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