



Groin Keloids Post Bilateral Inguinal Herniotomy in a 4 Year Old Male– A Case Report with Review of the Literature

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Abstract

Aberrant reaction to cutaneous injury spreading beyond the original wound's boundaries results in the formation of keloids. We present the case of a four-year-old male patient who had bilateral inguinal herniotomy at another facility presenting 1 year later to our facility with huge keloids in the groin. The keloids were surgically excised. The patient was scheduled for post surgical triamcniolone injection but defaulted treatment.

Introduction

Keloids result from aberrant healing in response to an injury or wound. Keloids are fibroproliferative disorders that can result from cutaneous injuries to the reticular dermis [1]. Keloids are usually very obvious and are more likely to occur in areas like the anterior chest, shoulder, deltoid, mouth, and ears causing both cosmetic as well as significant psychosocial burden for the patient [2]. Keloids can form in any part of the body where scarring occurs and spontaneous regression is unlikely, and with multiple management protocols, recurrence is high [3] Keloids occurring in the groin is quite rare. Different treatment options have been described however combination therapy which includes surgery is the best option for management. In this case report, we present a 4 year old who developed huge keloids in the groin after bilateral inguinal herniotomies.

Case Report

A 4-year-old healthy boy presented to our clinic after being operated for bilateral inguinal hernia in another country before presenting to our facility. The surgery had been performed 1 year prior to presentation. The mother noticed the keloid scar a few months after the surgery and it kept increasing in size prompting her to seek medical management. [Figure 1]. On examination, there was huge complex multilobulated keloid spanning from the right groin across the pubic area to the left groin. Under general anesthesia, an elliptical incision was made around keloid, incision deepened and the keloid was completely excised and specimen sent for histopathology [Figure 2]. The wound was closed with subcuticular sutures and patient's recovery was uneventful [Figure 3]. He was discharged home the same day and was scheduled for post surgical triamcinolone injection. Patient defaulted his clinic visits so injections could not be given. Upon telephonic follow-up, the mother said the patient received the injection in another country after the procedure. However, the keloid has started recurring 7 months after the surgery.

Figure 1 : Keloids at post bilateral herniotomy incision site



Figure 2 : Keloids after Excision



Figure 3: Post Excision of Keloids



Discussion

Keloids are pathological scars that occur due to an excessive aggregation of collagen type I and fibroblasts within the inflammatory reticular dermis. Keloids usually develop in areas of extremely tense, mobile parts of the skin. In a report by Louw, Asians and Blacks are more prone to developing keloid than caucasians. In another study, Black people are significantly more likely to develop Acne Keloidalis Nuchae (AKN) than Asians, a particular type of keloid [4,5]. Rubinstein-Taybi syndrome (RSTS), Ehlers-Danlos syndrome, Lowe syndrome, new X-linked syndrome, Dubowitz syndrome, Noonan syndrome, and Goeminne syndrome are among the illnesses connected to a higher incidence of keloid. It then appears that genetic and environmental variables contribute to the development of keloids.[4]. One gene also linked to keloid risk is *ASAH1* [6]. It is sometimes difficult differentiating keloids and hypertrophic scars. The main method used to distinguish keloids and hypertrophic scars is histopathology combined with clinical symptoms but this can sometimes be confusing [7]. Practically, the main differences between keloid and hypertrophic scars are hypertrophic scars does not extend beyond the wound boundary and it may disappear spontaneously, and after excision. Hypertrophic scars do not reoccur like keloids. Hypertrophic scars present within a few weeks in contrast to keloids which may appear much later [8,9]. The extremely high recurrence rate of surgery as a stand-alone treatment is its main drawback. Surgery alone is not sufficient and multimodal treatment is the way to go. Intralesional corticosteroid injections by means of anti-inflammatory action and inhibiting the production of fibroblasts by reducing collagen and synthesizing glycosaminoglycans are the most common additional treatment options available in the treatment of keloids. Other adjuvant treatment modalities are superficial radiation therapy, autologous platelet-rich plasma, bleomycin, and verapamil. [10,11]. Triamcinolone acetonide injections limit fibroblast proliferation while promoting collagen degradation. Adverse effects of intralesional corticosteroids include hypopigmentation, cutaneous atrophy, telangiectasia, and injection site discomfort [12,13].

In this case report, we completely excised the keloids at the groin. Patient defaulted planned follow up treatment subsequently leading to recurrence 7 months later.

Conclusion

Keloids after herniotomy is very rare. Only one other case report has been reported on this. Genetic and Environmental factors may play a role in the development of these keloids. Surgical excision and post-surgical steroid injection is the mainstay of treatment. Patients have to be followed up closely due to the high risk of recurrence. Although rare, keloids can occur after surgery for inguinal hernia and parents have to be counselled on this as a complication.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient's mother has given her consent for the patient's images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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