12th ASIA-PASIFIC ENVIRONMENTAL AND OCCUPATIONAL DERMATOLOGY SYMPOSIUM (APEODS) in conjunction with 13th ANNUAL SCIENTIFIC MEETING OF INDONESIAN SOCIETY OF DERMATOLOGY AND VENEREOLOGY (PIT-PERDOSKI)

Role of Dermatovenerology in Environmental and Occupational Health

PROGRAM BOOK & ABSTRACT

Yogyakarta, October 23-26, 2013
THE SAHID RICH JOGJA HOTEL
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KELOIDS TREATED WITH COMBINATION OF SURGICAL EXCISION AND INTRALESIONAL CORTICOSTEROID INJECTIONS: TWO CASES REPORT

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Introduction. Keloids are the result of overgrowth of fibrous tissue, following healing of a cutaneous injury, and cause morbidity. There are several treatment modalities which are useful for the management of keloids, though no single modality is completely effective. A common therapy for keloids is intralional injection of a corticosteroid, such as triamcinolone acetonide. Surgical excision is also common, often a corticosteroid is injected weeks after excision when wound repair has already begun.

Cases

Case 1. 27-year-old woman came to the outpatient unit of Ibn Sina hospital with complaints of a lump on the left ear since 3 years ago after ear piercing.

Case 2. 17-year-old man came to the outpatients unit of Ibn Sina hospital with complaints of a lump on the left ear since 5 years ago after injuries.

Both patients were diagnosed as keloids base on history taking, physical examination and histopathology. They were treated with surgical excision and intralional triamcinolone acetonide injection every 2 weeks for 3 month.

Discussion. Keloids occur in young adults, any history of trauma on the ear, scars that grow aggressively in recent years and itchy. Physical examination showed erythematous solid nodules. Both patients were treated with surgical excision and intralional triamcinolone acetonide. When intralional steroids are combined with surgical excision, the recurrence rate appears to be significantly lower than that with surgery alone. Triamcinolone acetonide was effective in suppressing the pro-a1(I) collagen gene expression when administered immediately after surgery.

Keyword: excision, keloids, intralional triamcinolone acetonide

BLEPHAROPLASTY: FIVE CASES REPORT

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Introduction. Blepharoplasty is an operation that has the potential to improve the appearance of the eyelids. Upper and lower eyelid blepharoplasty are indicated for the treatment of excess skin and/or orbital fat. Symptoms such as tired-looking eyes, excess skin, droopy eyelids, or circles around the eyes may benefit from blepharoplasty. Blepharoplasty can be performed by many operative approaches. The goal of the surgery is to reshape the eyelids for more pleasing, aesthetic result.

Case. Five patients underwent blepharoplasty (1 lower eyelid and 4 upper eyelid) under local anesthesia and 1 patient through transcutaneous blepharoplasty lower eyelid with fat excision and 4 patients skin only upper eyelid approach. The average age was 51 and four female and one male.

Discussion. Transcutaneous lower eyelid blepharoplasty with fat excision has been used with excellent result. This procedure is the best way to approach undesirable conditions caused by aging of the lower eyelid. No complication such as lower lid retraction and scarring. Upper eyelid blepharoplasty can be performed via anterior approach where only skin is excised. Skin only technique is ideal for skin laxity, with no fat prolapse. Redundant skin can be removed conservatively and redraped without disturbing underlying orbicularis. No lagophthalmus were reported.

Keywords: blepharoplasty, transcutaneous, skin only
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Introduction
Keloids are the result of overgrowth of fibrous tissue, following healing of a cutaneous injury, and cause morbidity. There are several treatment modalities which are useful for the management of keloids, though no single modality is completely effective. A common therapy for keloids is intralesional injection of a corticosteroid, such as triamcinolone acetonide. Surgical excision is also common, often a corticosteroid is injected weeks after excision when wound repair has already begun.

Cases
Case 1
27-year-old woman come to the outpatient unit of Ibnu Sina hospital with complaints of a lump on the left ear since 3 years ago after ear piercing.
Case 2
17-year-old man come to the outpatients unit of Ibnu Sina hospital with complaints of a lump on the left ear since 5 years ago after injuries.
Both patients were diagnosed as keloids based on history taking, physical examination and histopathology. They were treated with surgical excision and intralesional triamcinolone acetonide injection every 2 weeks for 3 month.

Discussion
Keloids occur in young adults, any history of trauma on the ear, scars that grow aggressively in recently years and itchy. Physical examination showed erythematous solid nodules. Both patients were treated with surgical excision and intralesional triamcinolone acetonide. When intralesional steroids are combined with surgical excision, the recurrence rate appears to be significantly lower than that with surgery alone. Triamcinolone acetonide was effective in suppressing the pro-α1(I) collagen gene expression when administered immediately after surgery.

Key word: excision, keloids, intralesional triamcinolone acetonide

Introduction
Keloid is the manifestation of imbalance collagen synthesis and degradation. An abnormal scar extends beyond the border of original wound with itchy and pain.¹ They occur more frequently in people of African descent, equal frequencies in men and women, the commonest age for the onset of keloids is between 15 and 45 year, and they tend to be present more frequently on the chest, shoulders, upper arms and ears.² A variety different types of
skin injury can lead to keloid growth, including surgery, ear piercing, laceration, abrasions, tattooing, vaccinations, injections, insect bites, burns, and any process resulting in skin inflammation (chicken pox, acne, folliculitis, and zoster).\(^3\text{–5}\)

Although the pathogenesis of keloids remains elusive, many advances have been made in uncovering the biochemical abnormalities that are found in keloid scars. Experiment with cells derived from keloids tissue revealed a number of abnormalities in cellular functions, such as proliferation, apoptosis, or expression of growth factors and extracellular matrix proteins. Furthermore, several studies have reported altered keratinocyte-fibroblast interaction in keloids.\(^6\text{,}7\) Despite the diverse pathological changes in cellular functions and expression profiles of cells derived from keloid tissue, recent genetic studies have provided evidence that single gene may act as a major regulator of keloid formation.\(^6\)

Keloids are generally defined as abnormal fibrous proliferations of the dermis. Clinically they appear as nodular, frequently lobulated, solid masses extending laterally into healthy tissue. They grow continuously but intermittently, and show no evidence of significant regression. During the initial phase of development and during the period of active growth, the lesions are reddish or violet, with modest vascularization, and small blood vessels visible beneath the skin covering.\(^3\) Unlike hypertrophic scars, they do not cause retraction.\(^3\text{,}8\)

It is clear that there is no ideal, uniformly effective treatment for all keloids. Therapy must be tailored to the unique characteristics of the individual keloid such as the location, size, depth, age of the patient, and the response to previous treatment. Also, the patient’s goals and expectations must be considered.\(^7\) There are several treatment modalities which are useful for the management of keloids, though no single modality is completely effective. The most commonly used modalities are pressure, silicone gel sheet, intralesional steroids, 5-fluorouracil (5 FU), cryotherapy, surgical excision, and lasers.\(^8\text{,}9\) They may be used either singly or, as is done more commonly, in combinations. A common therapy is intralesional injection of a glucocorticosteroid, such as triamcinolone acetonide (TA). Surgical excision is also common; often a glucocorticosteroid is injected weeks after excision when wound repair has already begun. It is possible while TA administered immediately after excision may prevent recurrence of a keloid.\(^9\)

This paper reports 2 cases of keloid on the earlobe treated with a combination of surgical excision and intralesional triamcinolon acetonide injection. Both patients showed clinical improvement after 3 months of therapy.
Case Report

Case 1

27-years-old woman was admitted to outpatient unit department of dermatovenerology Ibnu Sina hospital with complaints of a lump in her left ear since 3 years ago after ears piercing, then scar progressively enlarged. Patients also complain that itchy bumps, but no pain or bleed easily, and no history of previous treatment. History of similar previous complaints and families with similar complaint was denied. Physical examination in the left auricular region showed erythematous nodule with size of 1.5 x 2 cm and solid consistency. The patients were diagnosed as keloids, surgical excision was performed and followes by intralesional triamcinolone acetonide injection every 2 weeks.

Figure 1: On the left auricular region showed a solid, erythematous nodule size of 1.5 x 2 cm.

Histopathological examination from the excised nodules showed epidermal hyperkeratosis, subepidermal and subcutaneous tissue containing a dense collagens, and infiltration of lymphocyte in subepidermal. Cartilage elements not found in this preparation and support the diagnosis of keloids.

Figure 2. Histopathology showed epidermal hyperkeratosis and dense collagen in the subepidermis dan subcutaneous. a) 100x magnification, b) 400X magnification
Follow up 4 weeks after excision, the wound was healed, sutures are removed, intralesional triamcinolone acetonide injection was performed. Follow up 6 weeks and 3 month, lesion was healed and no sign of recurrence.

![Figure 3. Follow up after 6 weeks (a) and 3 month (b)](image)

Case 2

17-year-old man was admitted to outpatient unit department of dermatovenereology Ibn Sina hospital with complaints of a lump in his left ear since 5 years ago after injury, then scar progressively enlarged. Patients also complain that itchy bumps, but no pain or bleed easily. Previously, about 2 years ago he had surgery to remove the lump, but growth again and bigger. History of similar previous complaints and families with similar complaint was denied. Physical examination in the left auricular region showed solid nodule with size of 2 x 4 cm. The patients were diagnosed as keloids, surgical excision was performed and followes by intralesional triamcinolone acetonide injection every 2 weeks.

![Figure 4. Solid nodule size 2x4 cm on the left auricular](image)
Histopathological examination of the excised nodules showed a thin epidermal and collagen proliferation beneath it, this support diagnosis of keloids.

Figure 5. Histopathologic examination showed thin epidermal and proliferation of collagen beneath it (100x magnification)

Follow up 4 weeks after excision, the wound was healed, sutures are removed, intraleisional triamcinolone acetonide injection was performed. Follow up 6 weeks and 3 month, lesion was healed and no sign of recurrence.

Figure 6. Follow up 6 weeks (a) and 3 month (b) after excision

Discussion

A keloid is a benign, well-demarcated area of fibrous tissue overgrowth that extends beyond the original defect.\(^4, 10, 11\) A scar at any site has the potential to become hypertrophic or keloidal, although the earlobes, chin, neck, shoulders, upper trunk and lower legs are especially vulnerable. Ear piercing is an important cause of earlobe keloids, with a 2.5% incidence.\(^12, 13\) Another risk factor is the presence of foreign material, either exogenous (e.g. suture material) or endogenous (e.g. embedded hair). Its rarely in infants and old age, most often occurs in puberty until the age of 30 years.\(^12\) Characteristically, keloids generally
appear within one to two months of trauma, but onset may be delayed up to one year or more. Often intense pruritus accompanies the growth phase.\textsuperscript{6, 7} History taking in both cases show occurred in young adults, have a history of trauma on the ear, and scars that grow aggressively in recent years and accompanied by itch.

In case 1, showed an erythematous nodule size of 1.5 x 2 cm with solid consistency, and in case 2 we observed a solid nodule size of 2x4 cm. Keloids vary in size from small papules to large pendulous tumors. Shape may vary from evenly contoured, symmetric protrusions with regular margins to irregular claw-like projections from an unevenly twisted mass. The physical characteristics of the keloid are somewhat dependent on anatomic location. Earlobe keloids are clinically diverse.\textsuperscript{7} Keloids appear as well-circumscribed pink to purple firm nodules or plaques with a smooth, but irregular border.\textsuperscript{14} Keloids usually appear as firm broad nodules, often erythematous and with a shiny surface and sometimes with telangiectasis.\textsuperscript{6}

Histopathological examination of the case 1 observed hyperkeratosis of the epidermal and dense collagen in subepidermis through subcutaneous tissue, and in the case 2 reveals a that tissue consisting of a thin epidermis and collagen proliferation beneath it. The literature mentioned, keloids are characterized histologically by the intradermal presence of highly compacted hyalinized collagen in nodular formations.\textsuperscript{7, 12} The nodules gradually increase in size and ultimately show thick, highly compacted, and hyalinized bands of collagen lying in a concentric arrangement. Blood vessels, the number of fibroblasts, and ground substance are all increased.\textsuperscript{7} The epidermis appears either flattened or normal.\textsuperscript{12} Mast cells are present only in the dermis and never in the epidermis, as in normal skin. However, the mast cells are more diffusely distributed than the normal periadnexal location. The actual number of mast cells in keloids is increased due to the presence of a much thicker dermis.\textsuperscript{7}

The primary goals while planning a treatment protocol should be a low recurrence rate, significant cosmetic and symptomatic improvement and minimal adverse effects. Therapy must be tailored to the unique characteristics of the individual keloid such as the location, size, depth, age of the patient, and the response to previous treatment. Also, the patient’s goals and expectations must be considered.\textsuperscript{8} There are several treatment modalities which are useful for the management of keloids, though no single modality is completely effective. These include surgical excision, cryotherapy, laser therapy, radiotherapy, interferon injection and injection of corticosteroids.\textsuperscript{15, 16} Other therapies such as compression therapy, topical retinoids, imiquimod, bleomycin and 5-FU has also been tried for keloids.\textsuperscript{17, 18} The
most commonly used corticosteroid in keloid treatment is the use of triamcinolone acetonide at a concentration of 10–40 mg/ml depending on the size of the keloid.\(^4\)\(^,\)\(^5\)\(^,\)\(^6\) Corticosteroids reduce collagen synthesis and increase collagenase activity.\(^19\) Corticosteroid preparations have been studied as monotherapy and as combination therapy with surgery.\(^4\) When corticosteroids combined with surgical excision, recurrence rates seem to be lower than surgical excision alone.\(^4\)\(^-\)\(^6\) Triamcinolone acetonide was effective in suppressing the pro-\(\alpha\)(I) collagen gene expression when administered immediately after surgery.\(^5\)\(^,\)\(^9\) In both cases, performed surgical excision of keloid is then injected intralesional corticosteroids immediately after surgical excision and our observation for 3 months does not seem any sign of recurrence.

Prevention of keloid recurrence after surgery is of the most important. Presence of risk factors, such as family history of keloids, African race, high pressure body site allows for scarring or keloid after surgery. Identifying risk factors and minimize skin tension and inflammatory response after surgery by using the appropriate materials and and as certaining clean surgery and good wound care are simple practical prophylactic measures.\(^10\)

Reference


