Keloids: A prospective study of 57 cases

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SUMMARY

Of the total 57 cases of keloids, 8 cases of massive keloids were treated by diathermy excision and immediate skin grafting; 35 keloids of ear lobule by intramarginal excision and post-operative local hydrocortisone; 7 presternal keloids by local corticoids alone and a miscellaneous group of 7 cases of keloids were treated by combination therapy.

It is concluded that massive keloids with or without sinuses and keloidal contractures require surgery to improve appearance and function respectively. Ear lobule keloids are best treated by intramarginal excision and post-operative local hydrocortisone. Presternal keloids and small keloids elsewhere should be treated by intralesional injection of corticoids alone. Initial results of intramarginal excision with or without local corticoids were satisfactory. However it is too early to claim best result with this regimen, in the absence of long term follow up.

INTRODUCTION

Keloids are common in black Africans but rare in causasians (Norman, 1969). They have a familial tendency and may follow any type of trauma-physical, chemical, thermal etc., however trivial it may be. Some people have a greater tendency to progressive keloids formation all over the body and recurrence after surgical excision than others (Norman 1969).

The condition is not fatal but can create serious psycho-social problems to the patient. In many patients it causes physical discomfort such as itching, pain, ulceration, sinus formation and infection. In some patients keloids especially in neck and flexural aspects of the limbs cause severe disability and functional loss.

At present there are no facilities for radiation therapy in Zambia. Many patients go elsewhere for treatment incurring heavy expense and most of them develop recurrence sooner or later.

It was therefore decided to undertake a clinical study of keloids with special reference to intramarginal excision with or without local corticoids. This paper is based on the initial analysis of 57 keloids of various sites from an on-going prospective study.
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MATERIAL AND METHODS

Fifty-seven cases of keloids were classified as following:

Group I:
massive keloids (8 cases) measuring more than 10-15 cms diameter.

Group II:
keloids of the ear lobule (35 cases).

Group III:
pres-ternal keloids (7 cases).

Group IV:
keloidal contracture (9 cases).

Group V:
miscellaneous group.
(a) post-operative (3 cases).
(b) recurrent keloids (3 cases).

The following treatment policies were adopted based on site and size of the lesion and associated problems such as ulceration, sinuses and functional loss.

Group I:
eight cases were treated by intramarginal excision by diathermy followed by immediate skin grafting.

Group II:
thirty-five cases of ear lobule keloids were treated by intramarginal excision, primary reconstruction of ear lobule and post-operative local corticoids.

Group III:
seven cases of pre-sternal keloids were treated by local corticoids alone.

Group IV:
nine cases of keloidal contractures—5 neck, 3 elbow and 1 axilla, with significant functional loss, were treated by excisional or incisional release of contracture and primary autogenous skin grafting.

Group V:
seven cases—3 following surgical scar and 3 recurrent keloids following previous surgery were treated by local corticoids.

RESULTS

Most of the massive keloids and pre-sternal keloids were found in young males. Ear lobule keloids were exclusively encountered in females. Age ranged from 13 years to 45 years. Most cases gave a history of some sort of trauma. Some cases however, mostly pre-sternal keloids gave negative history of trauma or history of mosquito bites.

Group I:
eight cases of massive keloids showed very good results initially. Graft take was 90-100%. Some patients lost 10-30% grafts subsequently but healed well without further skin grafting. One case showed recurrence within a year but the size was tolerable to the patient. One case showed excellent results up to the last follow up (1½ years Figs 1 to 4) and remaining patients did not return.

Group II:

thirty-five young females with ear lobule keloids showed good results. Most of them had post-operative local corticoids (Hydrocortisone 100 mg + 1 cc 2% xylocaine

Fig. 1

Giant keloid of chin cheek and neck of unknown etiology. Size and foul discharge from the sinus made his life miserable.
through the posterior scar into the scar tissue every fortnight for 6-10 injections). No immediate recurrence was seen (except one case) in these patients for periods of 6 months to one year.

Group III:
seven cases of presternal keloids responded to local corticoids. They complained of less pain, itching and tension but except for little softening the size remained unaffected.

**FIG. II**

*Lateral view of the same patient as in Fig. 1, showing extension up to and beyond the ear.*

Group IV:
nine cases of keloidal contracture treated by release and primary skin grafting showed initial good functional results, but, those who were followed, developed 50% recurrence of contracture due to keloid formation beneath the skin grafts within six months.

Group V:
post-operative and recurrent keloids were treated by local corticoids alone and showed varying amount of symptomatic improvement.

**DISCUSSION**

In spite of preventive measures the tendency to keloid formation in certain individuals is still unexplainable. The following treatment policies have been practised by various workers with varying success.

2. Radiation therapy alone. Not suitable for many cases.
3. Intramarginal excisions – recurrence rate high but not known.
4. Local corticoids alone – hydrocortisone or triamcinolone acetonide – response rate 100%, cure rate variable, not suitable for massive and old keloids (Frances, M. 1967, Lynn D. Ketchum et al 1971).
5. Surgery and radiotherapy – has radiation hazard.
FIG. IV

Lateral view of the same after surgery. Note the absence of hair growth in grafted area.


Total surgical excision alone is almost always followed by recurrence (90%) and therefore has no place in the treatment of keloid (Frances M. 1967; Verbov and Abell, 1970 and Lynn D. et al 1971).

Intramarginal excision with primary closure and skin grafting gives slightly better results initially, but ultimately followed by a high recurrence rate (Frances M. 1967, Verbov and Abell, 1970 and Lynn D. et al 1971).

Radiotherapy helps by reducing symptoms such as itching and pain and also causes regression of the growth. Many cases show recurrence of symptoms and keloids formation. Other radiation hazards viz., systemic toxicity and local ulceration, delayed atrophy of the skin and malignant change have been noticed. Local corticoids have recently been tried by various techniques — around the keloids, into the keloid and post operatively, utilizing hydrocortisone or triamcinolone by ordinary or a Dermojet with varying results (Frances M. 1967).

Mass... sinuses is socially. Intramarginal excision and immediate skin grafting gives satisfactory results. The patient improves psychologically and becomes acceptable to the society.

Incapacitating and disabling keloidal contractures when treated by incisional release of contracture and primary thick split thickness skin grafting initially gives satisfying results, but have a tendency to recurrence of contracture by 50-60%. Functional improvement even of small measure, especially in the neck or a joint may help the patient reduce his disability to a satisfactory extent to carry out purposeful movements.

Surgery of presternal keloid is disappointing and therefore local corticoids, if tried in initial stages when the keloid is still immature, may take care of symptoms and even reduce the size of the lesion.

CONCLUSION

1. Massive keloids with or without ulceration or sinuses should be removed surgically to make patient comfortable and acceptable to society.

2. At present best results are achieve in ear lobule keloids by intramarginal excision and local corticoids.

3. Keloidal contractures when relieved surgically gives partial improvement in most cases.

4. Surgery is contraindicated for presternal keloid for high incidence of recurrence. Intralesional injection with corticoids are helpful in taking care of pain and itching.

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REFERENCES


