

Role of Intralesional Triamcinolone Acetonide Injection in Management of Chalazion

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Abstract:

Objectives: To study the efficacy of intralesional triamcinolone acetonide injection in the management of chalazion.

Materials And Method: A prospective clinical study on patients with chalazion less than 5mm in size attending the OPD of department of ophthalmology in a tertiary centre. **RESULT:** Patient with chalazia of size <5mm responded well to the treatment. **CONCLUSION:** We conclude from the present study that intralesional triamcinolone acetonide injection is a simple, safe and effective alternative to surgery in the treatment of small chalazia

Keywords: Chalazion, Intralesional triamcinolone acetonide

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I. Introduction

A chalazion is also known as meibomian cyst or tarsal cyst. This is a chronic inflammatory granuloma of meibomian gland. Chalazion are often multiple and are common in adults. A chalazion can sometimes be mistaken for a hordeolum externum. They may become acutely inflamed but, unlike a hordeolum externum, chalazion usually point inside the lid rather than on the lid margin. The common signs and symptoms are swelling on the eyelid, eyelid tenderness, sensitivity to light, increased tearing, heaviness of the eyelid.

Triamcinolone acetonide is a synthetic corticosteroid. It is a more potent derivative of triamcinolone, being about 8 times as potent as prednisone. The maximum dosage for both adults and children (age 6-12 years) is 220 mcg per .day.

II. Methodology

A written informed consent of the patient/ parent or guardian will be taken after explaining the whole procedure to the patient. Size of the chalazion was measured across its widest diameter and recorded. Under aseptic precautions conjunctiva of the eye with chalazion will be anesthetized with 4% xylocaine drops. A vial of Triamcinolone Acetonide containing 40mcg/ml was taken and diluted with normal saline to make a suspension of 5mcg/ml and 0.2 to 0.6 ml of this suspension was injected into the center of the chalazion from the conjunctival surface using a tuberculin syringe and a 25G needle. The patient was re-examined on the 3rd days, 1 week, 1 month and 3 months after the procedure and the lesion was again measured across the widest diameter and recorded. Size was found to be 80% smaller with no recurrence. If the lesion recurred or regression is minimal (<50%), then further injections was given as needed. Patients who decline injection or who do not respond to 2 to 3 injections will be referred for surgical incision and curettage.

III. Results

As per present study, incidence of chalazion in 11-20 years age group is 43.33% and 21-30 age group is 36.66%, thus comprising 79.99% of total cases in the 11-30 years age group. Patient with chalazia of size <5mm responded well to the treatment. Recurrence rates were high among group II (where the size of chalazion was more then 5mm) than group I (where the size of chalazion was less then 5mm)

Table 1: Age distribution

Age (yrs)	No. of. patients	Percentage
<10	1	3.33%
11-20	13	43.33%

21-30	11	36.66
31-40	5	16.66
TOTAL	30	100%

Number of Patients	30
Mean age in Years	23.46
Minimum age in years	10
Maximum age in years	38

Table 2: Response to Treatment

Size of chalazia	No. of Cases	Resolution After 1 wk.	Repeat inj. After 1 wk.	No Resolution After 1 Month
Group I (<5mm)	14	10(71.43%)	4(28.57%)	0
Group II (>5mm)	22	11(50%)	11(50%)	3(13.6%)

Patient with chalazia of size<5mm responded well to the treatment

Table 9: Recurrence Rates

Group	Recurrence at Same site	Recurrence Elsewhere
Group I	0	2
Group II	2	3

Recurrence rates high among group II than group I.

IV. Discussion

Triamcinolone acetonide is a steroid suspension. It was used for intraarticular injection of inflamed joints and for intradermal injection in dermatological conditions. Two previous trials of injection of chalazions have been reported. The only complication reported was a yellow deposit in the skin of a black patient. However, in this case the injection had been transcutaneous. Temporary atrophy of skin in the region of intradermal steroid injections is a recognised problem, though it did not occur in the two previously mentioned trials. The advantages of injection over incision and curettage are that it is quicker, requires no special instruments, is less painful than injection of local anaesthetic, and does not require dressing. No complications occurred in the trial. A disadvantage is incomplete resolution or recurrence. Furthermore, as the procedure is so quick, there is less total time spent giving two injections than in doing an incision and curettage. In a small proportion of cases, incision and curettage was necessary after failure of two injections to effect a satisfactory resolution.

V. Conclusion

From the results of this study, we conclude that intralesional triamcinolone acetonide injection is effective in resolving acute and sub-acute chalazia of soft to firm consistency irrespective of their duration. This method was found to be more advantageous than conventional surgery, as time required is usually less than five minutes, patching or bandaging of the eye is not necessary and therefore multiple chalazia in eyelids of both sides can be managed in the same setting. It has a high patient acceptance and reduces the cost of therapy considerably. Depending upon the location of lesion, either transconjunctival or transcutaneous approach can be used. The disadvantage of this procedure was that roughly half of the cases required a second injection and a very small proportion of cases (7%) that did not respond to 2nd injection, required incision and curettage. Thus, we conclude from the present study that intralesional triamcinolone acetonide injection is a simple, safe and effective alternative to surgery in the treatment of small chalazia.

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