

**INTRA LESIONAL TRIAMCINOLONE FOR SOLITARY AND MULTIPLE CHALAZIA**Gnana Jyothi C. Bada<sup>1</sup>, Satish Patil<sup>2</sup>, G. Amaresh<sup>3</sup>**HOW TO CITE THIS ARTICLE:**

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**ABSTRACT:** Chalazion is a common ophthalmic condition characterized by chronic lipogranulomatous inflammations of the eyelid caused by plugged meibomian glands. It causes local eye symptoms such as irritation, inflammation and cosmetic disfigurement, mechanical ptosis and corneal astigmatism. 30 patients of the age group between 15 to 40 years having solitary and multiple chalazia present in upper or and lower lids were included in the study. Triamcinolone acetonide 0.1 ml - 0.2ml (4-8mg) was injected from conjunctival approach using a tuberculin syringe. Our results suggest that intra lesional injection of corticosteroid is one the ideal treatment for chalazion especially multiple, bilateral and those near the punctum. In majority of cases one injection is sufficient for complete resolution of the chalazion within a period of a week's time. Injection can be repeated after a week in cases having residual swelling.

**KEYWORDS:** Chalazion, Triamcinolone.

**INTRODUCTION:** Chalazion is a common ophthalmic condition which can be diagnosed easily. They are chronic lipogranulomatous inflammations of the eyelid caused by plugged meibomian glands.<sup>1</sup> It can affect individuals of all ages. It causes local eye symptoms such as irritation, inflammation and cosmetic disfigurement. Larger lesions can induce mechanical ptosis and corneal astigmatism.<sup>2,3</sup>

The purpose of the study was to evaluate the effect of intralesional triamcinolone for solitary and multiple chalazia.

**MATERIALS AND METHODS:** 30 patients of the age group between 15 to 40 years having solitary and multiple chalazia present in upper or and lower lids were included in the study after taking informed written consent. Of these two patients had bilateral involvement. Chalazia were treated previously conservatively with warm compresses, lid hygiene, antibiotics drops and ointment and oral doxycycline.

All the patients underwent ophthalmic examination including visual acuity and intraocular pressure measurement. All the lesions were photographed before and after treatment at each follow up. The size, location and number of chalazia were recorded.

**PROCEDURE:** Topical xylocaine 4% was instilled. Triamcinolone acetonide 0.1 ml-0.2ml (4-8mg) was injected from conjunctival approach using a tuberculin syringe. All the lesions were injected in the same sitting in case of multiple and bilateral chalazia. After the injection antibiotic ointment was instilled. No patching of the eye was done. Patient was advised to instill antibiotic eye drops and ointment and was called for follow up after 1 week. Success was defined as 90% to 100% decrease in the size of lesions with no recurrence. Injections were repeated if the lesions regressed minimally.

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Injections were repeated after 1 week. Lesions which did not regress underwent incision and curettage under local anesthesia.

**RESULTS:** Of the 30 patients, who underwent intralesional triamcinolone injection, 13 patients had multiple chalazia and 2 had bilateral chalazia. 6 patients required one repeat injection which was given after 1 week. 2 patients needed two repeat injections which were repeated after 1 and 2 weeks respectively. In 1 patient the lesion did not regress completely and underwent incision and curettage. The success rate was 97 % in our study with no adverse effects like loss of visual acuity, increase in intraocular pressure or depigmentation changes.

**DISCUSSION:** A chalazion may occur acutely with eyelid edema and erythema and evolve into a nodule, which may point anteriorly to the skin surface or, more commonly, through the posterior surface of the lid. The lesion may drain spontaneously or persist as a chronic nodule, usually a few millimeters from the eyelid margin.

Histopathology shows a peculiar inflammation of a meibomian gland producing granulation tissue rich in gland cells. The surrounding tissue of the tarsus becomes densely infiltrated with leucocytes ultimately resulting in a mass of granulations surrounded by a ring of fibrous tissue. Further evolution of this process leads to compression of peripheral tissue which now forms a dense capsule and retrogressive changes occur centrally.<sup>4</sup>

Chalazia are composed of chronic inflammatory cells, viz histiocytes, multinucleated giant cells, lymphocytes, plasma cells, a few polymorphonuclear leucocytes and eosinophils. All these cells are sensitive to corticosteroids.<sup>5</sup>

It may be self-limited in 25% to 50% of cases and can be cured or improved with medical treatment within 1 to 3 months.<sup>6</sup> Surgical treatments include steroids injections, CO<sub>2</sub> laser treatment, lesion excision, and curettage or total excision, botulinum neurotoxin type A injection.<sup>7</sup>

Surgical incision and curettage of chalazion is a simple and minor intervention and a commonly employed method for its treatment, but it has its own hazards. Intralesional corticosteroid therapy for the same is still simple, cheaper and a convenient procedure without any major complication.

Triamcinolone acetonide is an aqueous corticosteroid suspension used for intralesional injection of chalazia with excellent results.<sup>5</sup> Leinfelder used 0.25 ml of methyl prednisolone acetate sub-conjunctivally around the chalazion and reported marked decrease in the size of the chalazion<sup>8</sup>. Adverse effects noted in few studies include eyelid depigmentation and, rarely, even vascular occlusion or anterior segment ischemia.<sup>9-11</sup>

The procedure of intralesional corticosteroid is considered to be the most acceptable one due to several reasons Firstly it is a quick procedure, There is no need of patching, it is less painful, cheap, and does not require much skill It does not require local anesthesia and can be performed in children. In cases having multiple chalazia there are no chances of anesthesia induced edema which hinders the excision of small deep seated chalazia and lastly the location of chalazia close to the lacrimal punctum can be treated without danger of damage to the lacrimal passages.

The reported success rates with triamcinolone injections in studies by Guy J. Ben Simonet al<sup>3</sup> showed resolution in 80% of cases with no complications, A Panda et al had a resolution in 80% and 92% in single and multiple chalazia.<sup>6</sup>

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In our study, 88% and 12% resolution was seen with single and multiple injections in solitary chalazion and 69% and 23% resolution with single and multiple injections in multiple chalazia with no complication and no recurrence. But 1 patient (8%) had to undergo incision and curettage.

**CONCLUSION:** Simplicity of the procedure, its dramatic results and non-surgical nature are the basic commendable features of this non-surgical treatment of the chalazion. Triamcinolone injections offer a method which requires minimal facilities and time, no patch is required and patient compliance is very good, with minimum pain bleeding and anxiety. There is no risk of damage to canaliculi and multiple chalazia may be injected in the same sitting.

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	No. of patients	Percentage (%)
Unilateral	28	93
Bilateral	02	7

**Table 1: LATERALITY PRESENTATION**

	No. of patients	Percentage (%)
Solitary	17	56
Multiple	13	44

**Table 2: PRESENTATION: SOLITARY/MULTIPLE CHALAZIA**

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	No. of patients n=17	Percentage (%)
Single injection	15	88
Multiple injection	02	12
Incision and curettage	0	0

**Table 3: RESOLUTION OF SOLITARY CHALAZIA WITH TRIAMCINOLONE**

	No. of patients, n=13	Percentage (%)
Single injection	9	69
Multiple injection	03	23
Incision and curettage	01	8

**Table 4: RESOLUTION OF MULTIPLE CHALAZIA WITH TRIAMCINOLONE**



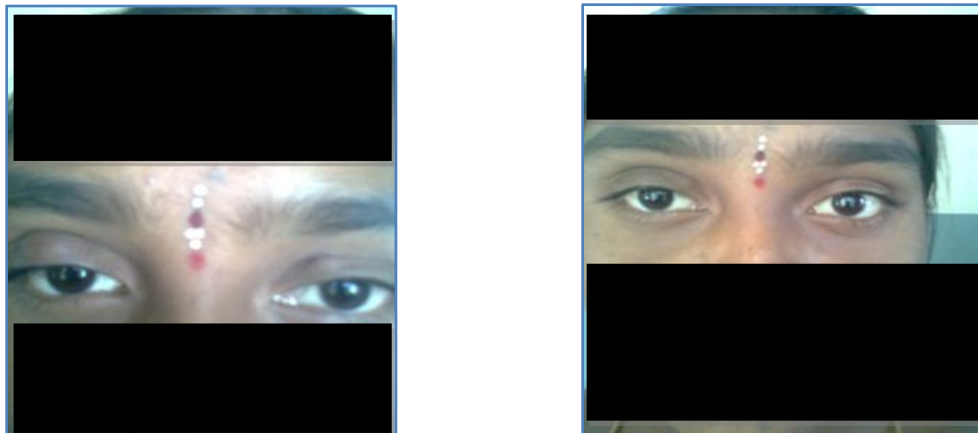
**Fig. 1: Intralesional triamcinilone procedure**



**Fig. 2: Multiple chalazia pre injection**



**Fig. 3: Resolution of multiple chalazia post injection**



**Fig. 4: Bilateral chalazia pre and post injection**

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