

## Intralesional Steroid Injection for Primary Chalazion in Adults

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### Abstract

**Background:** Chalazion (Meibomian cyst) a chronic lipo-granulomatous inflammation secondary to retention of sebum caused by obstruction of Meibomian gland duct of unknown cause. It is manifested by localized painless swelling in upper or lower lid usually points towards conjunctival side of lid (to be differentiated from sty). Vary in presentation from a small painless nodule self-limiting to a painful lid swelling complicated by corneal astigmatism and mechanical ptosis. Treatment option in case 2ry infection is hot compresses and topical antibiotic and if large surgery excision (vertical incision into the tarsal gland from conjunctiva surface). Injection of steroid (Triamcinolone) inside Chalazion considered as alternative treatment option with high success rate particularly in patients where incision and curette is difficult to perform due to poor patient's cooperation. Or risk of lacrimal passage injury when the lesion located near to it... The aim of this study is to assess the effectiveness of intralesional triamcinolone acetonide (TA) injection for the treatment of primary chalazion in adults.

**Methods:** 24 adult Patients mean age  $38.6 \pm 13.2$  years with primary chalazion subjected to intralesional triamcinolone injection as management of primary chalazion. 0.05 to 0.15 mL of triamcinolone injected into the center of the chalazion transconjunctivally in three patients the eversion of the upper lid were difficult and the injection was given transcutaneous.

**Result:** 15 females and 9 males were included in this study. right eye was more affected than the left side 14/10 respectively in all cases chalazion locate in the upper lid, mean chalazion size  $0.74 \pm 0.4$  mm<sup>2</sup>, time for complete resolution of the chalazion  $17.5 \pm 12.0$  days. There were no significant complications reported from this procedure

**Conclusion:** Intralesional triamcinolone acetonide (TA) injection for the treatment of primary chalazion in adult was effective and without any significant complications.

**Keywords:** Primary Chalazion, Triamcinolone, Intralesional Injection

### Patients and Method

Retrospective study included 24 cases documented in ophthalmology department- Althawra central hospital in Baida- Libya all cases subjected to intralesional triamcinolone injection as management of primary chalazion not responding to conservative treatment. All cases were injected by same ophthalmologist. The study included patients with the diagnosis of chalazion planned for intralesional Triamcinolone injection after failure of conservative treatment for at least 4 weeks. Patient with eyelid infection, chalazion of duration less than 4 weeks, suspicion of malignancy, steroid induced elevated intraocular pressure were excluded. The outcome result included duration of complete chalazion resolution and post-procedure complications if any were reported.

### Technique of Triamcinolone Injection

(Benoxinate 0.4%) a topical anesthetic eye drops were instilled in the affected eye according to the size of chalazion 0.05 to 0.15 ml of triamcinolone injected intralesionally procedure performed in the minor operation room. triamcinolone injected transconjunctivally into the centre of the chalazion with a 26-gauge needle. the injection given into the chalazion transcutaneously after disinfection of the skin If the eyelid eversion is not possible. Fucithalamic eye ointment three times per day has been prescribed to be applied over the lesion along with warm compression The patients were followed up weekly after the triamcinolone injection through out the resolution course.

### Result

24 patients with mean age  $38.6 \pm 13.2$  years old, 15 patients were females and 9 were males. Laterality, mean chalazion size, dose of triamcinolone used and time for complete resolution of the chalazion shown in (Table 1). All patients were Libyan. There

were no significant complications reported from this procedure.

**Table 1**

Number of Patients	Gender		Laterality		Mean chalazion size (mm <sup>2</sup> )	Mean Triamcinolone dose in (mg)	Resolution time (days)
	M	F	R	L			
24	15	9	14	10	0.74 ± 0.4	3.1 ± 1.2	17.5 ± 12.0

### Discussion

Advantages of intralesional steroid injection in compare with incision and curette are

less surgical manipulation, less bleeding and scar formation. This procedure is easy to perform and can be conducted as outpatient procedure in the examination room or minor O.T. It is also beneficial for multiple lesions and for lesions that are close to the lacrimal punctum.

intralesional steroid injections convenient for uncooperative patient and children In this study group the mean chalazion size was about 0.74 mm<sup>2</sup> and the candidates received a dose (around 3 mg) of Triamcinolone (TA) injection. This treatment regimen found to be effective in study group with a recovery rate of around 2 weeks.

Most importantly, there was no significant post- procedure complications in the study group. Palva and Pohjanpelto reported that larger chalazia involved a slower recovery and a higher recurrence rate [1]. In our study, we noted that the time taken for chalazion. In our study, resolution chalazia was almost equal despite the size difference and the amount of Triamcinolone injected (0.05 to 0.15 ml) this finding suggesting that the response to steroid injection is not dependent on lesion size or drug dose.

Jacky W. Y. Lee et al, compare in there study the effect of Intralesional Triamcinolone Acetonide Injection for Primary Chalazion in Children and Adults found that a single injection of intralesional TA for the treatment of primary chalazion was equally effective in children and adults, without any significant complications, and the rate of clinical response did not appear to be dose-dependent. in our study all patients were adult and we have reached to the same conclusion regarding the influence of chalazion size and triamcinolone used dose in treatment procedure [2-8].

### Conclusion

Intralesional triamcinolone acetonide (TA) injection for the treatment of primary chalazion in adult was effective and without any significant complications

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