

## Original Article

# Comparative Study of Surgical Treatment of Chalazion

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### Abstract:

A chalazion is chronic lipogranulomatous inflammatory lesion caused by blockage of meibomian gland orifices & stagnation of sebaceous secretion. Common practices in treatment of chalazion are intralésional steroid injection, incision & curettage and excision of chalazion. Recurrence rate is high for incision & curettage in case of large chalazion. The aim of the study is to establish that excision of large chalazion gives better result than incision & curettage. The study was carried out at Diabetic Association Medical College & Hospital, Faridpur and General Hospital, Faridpur. A total 100 cases were selected for study. Technique of operation were incision & curettage through conjunctival surface and excision of chalazion through skin surface. In 50 % cases we performed incision & curettage both in small (size <5mm) and large (size >5mm) chalazion. In 50 % cases of large chalazion we performed excision of chalazion. The follow up period was 3 months to 6 months. In group -A with incision & curettage through conjunctival surface, in case of small chalazion 27 out of 30 patients were cured (90%). In case of large chalazion 14 out of 20 patients were cured (70%). In group B with excision of chalazion through skin surface, in case of large chalazion 49 out of 50 patients were cured (98%). So higher success rate after excision of large chalazion through skin surface.

**Key words:** Chalazion, lipogranulomatous inflammation, incision & curettage, excision.

### Introduction:

A chalazion is chronic lipogranulomatous inflammatory lesion caused by blockage of meibomian gland orifices & stagnation of sebaceous secretion<sup>1</sup>. Patients with acne rosacea or seborrhoeic dermatitis are at increased risk of chalazion formation<sup>1</sup>. It is one of the most common disease of the eye lid. Long standing chalazion may turn into carcinoma cause much morbidity & even mortality of the patient. Recurrence of chalazion with incision & curettage specially with large chalazion cause increasing suffering of the patient. Treatment options of chalazion are intra-lesional steroid injection, incision & curettage through conjunctival surface and excision through skin surface. The success rate following one steroid injection is about 80%<sup>1</sup>. So we conduct a comparative study between these two methods of chalazion treatment and to compare the outcome of these methods.

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### Materials and methods:

The study was conducted at Diabetic Association Medical College & Hospital, Faridpur and General Hospital, Faridpur in the department of Ophthalmology from January 2014 to December 2014. A total 100 cases were selected for study. All the patients had chalazion of different size and duration. The age of the patients were 15 to 60 years. The operation was done under microscope. Written informed consent was obtained from each patient.

**In incision & curettage:** Topical anesthesia (0.4%) one drop every 5 minutes for 3 times was given. 2% lignocaine with adrenaline 2 to 3 ml was injected into sub-muscular layer of eye lid over the chalazion. Chalazion was fixed with chalazion clamp with solid blade on the skin surface & fenestrated blade on conjunctival surface. After vertical incision on the chalazion it was scoped with chalazion scope properly.

**Excision of chalazion:** After topical & local anesthesia the chalazion was fixed with proper size chalazion clamp with fenestrated blade on the skin surface. After horizontal incision over the chalazion along the skin crease, the orbicularis oculi muscle over the chalazion was split & separated all round the chalazion with small artery forcep. The chalazion was excised with a small scissor from its attachment with tarsal plate. Reposition of the orbicularis oculi &

skin. Stitched with 6/0 silk. Pad & bandage with antibiotic ointment for 12 hours. Stitches should cut and removed after 7 days. No visible scar will be seen after 15 days. Patients were followed up for 3 to 6 months, outcome was measured and compared accordingly.

### Results:

In group A with incision & curettage: In small chalazion; out of 30 cases 27 cured and 3 recurred that is success rate 90%. In case of large chalazion; 14 cured out of 20 cases that is success rate 70%.

In group B with excision of chalazion: 49 patients cured out of 50 that is success rate 98%.

So, higher success rate after excision of large chalazion through skin surface than incision & curettage of small and large chalazion through conjunctival surface (Table I).

**Table I:** Comparison of outcome of large chalazion between two procedures.

Type of Operation	Success	Recurrence	Total	P value*
Incision & Curettage	14	06	20	<0.001
Excision of Chalazion	49	01	50	
Total	63	07	70	

\*Data were analysis by chi-square test, p value <0.001 which was statistically significant.

Regarding outcome of small and large chalazion following incision and curettage there is no statistical significant difference (Table II).

**Table II:** Comparison of outcome following incision and curettage between small and large chalazion.

Type of Chalazion	Success	Recurrence	Total	P value*
Small	27	3	30	>0.05
Large	14	6	20	
Total	41	9	50	

\*Data were analysis by chi-square test

### Discussion:

Recurrence of chalazion after operation is a problem. Recurrence is higher in incision & curettage in large and small chalazion but lowest in excision of large chalazion through skin surface.

In this study recurrence rate of large chalazion after excision through skin (2%) is significantly less ( $P < 0.001$ ) than incision and curettage (30%). So, excision

through skin should be the treatment of choice for large chalazion. But recurrence of small and large chalazion following incision and curettage is not statistically significant ( $P > 0.05$ ), so small chalazion can be treated with incision and curettage.

Our findings are consistent with a previous study conducted at Noakhali General Hospital, Noakhali from January 2002 to August 2003<sup>2</sup>. They shown that the recurrence rate with incision & curettage in small chalazion was 10% and in large chalazion was 33.34% again recurrence rate in large chalazion was 02% when excision done through skin surface.

### Conclusion:

Small chalazion can be treated by incision & curettage, intra-lesional steroid injection but in case of large chalazion excision through skin surface under local anesthesia should be the method of choice with almost cent percent success rate.

### References :

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