Treatment of Chalazions with injection of a steroid suspension: A case report

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ABSTRACT

A chalazion is a chronic, sterile, granulomatous inflammatory lesion caused by retained sebaceous gland's secretion into adjacent stroma. Persistent chalazion may be treated by surgery or steroid injection into lesion. Steroid injection into lesion is preferable if close to lacrimal punctum. Triamcinolone Acetonide(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.

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INTRODUCTION

Chalazion is a chronic granuloma of an eyelid that develops because of retention of the secretions of a meibomian gland. After an acute inflammatory stage, it persists as a lump of a few millimetres in diameter that may slowly enlarge. The histopathological appearance may vary, but characteristically the lesion is a granuloma rich in epithelioid and giant cells. Lymphocytes, neutrophils, and eosinophils may also be plentiful. It is a common condition that affects people of all ages. The chief effects are cosmetic disfigurement with variable discomfort, and sometimes significant astigmatism.' In a recent study[2] it was shown that 25% or more of chalazions resolve spontaneously, but the rest are unlikely to disappear without intervention. The standard treatment of these lesions is by incision and curettage, which, though a minor procedure, often causes discomfort and some distress to the patient. It usually necessitates wearing a pad and bandage afterwards, which means that the patient should not drive. The aim of the trial was to determine the injecting chalazions with triamcinolone acetonide is an effective form of treatment, as well as quick and convenient.

The Case

An 18 years old young man presented to us with the complaints of multiple painless nodular

swelling in upper and lower eyelids of both eyes. On examination, there were multiple non tender, soft nodular swelling in upper and lower eyelids of both eyes. The patient was non-diabetic, normotensive and emmetropic. Systemic examination findings were normal. The conjunctiva was anaesthetized with a drop of oxybuprocaine (Benoxinate). The injection was given with a 1 ml insulin syringe with a 25 gauge needle. The eyelid with the lesion was everted with the use of a clamp, and the needle passed transconjunctivally into the chalazion in such a way that inadvertent perforation of the globe could not occur, even if the needle was passed too deeply (Figure 1). About 0-02 to 0.2 ml of a 10 mg/ml suspension of triamcinolone acetonide was injected, the amount depending on the size of the chalazion and the resistance felt on the syringe plunger. The eye was padded only for 1 hour after the procedure. The patient were given moxifloxacin eye ointment, three times per day, to apply over the lesion and advised to continue warm compression for 4 to 6 times per day for 10 minutes. The patient was reviewed every 2 weeks after the TA injection, until complete resolution of chalazion. Informed written consent was taken from patient for photography.

Figure 1: Multiple painless nodular swelling in lower lid (arrow)

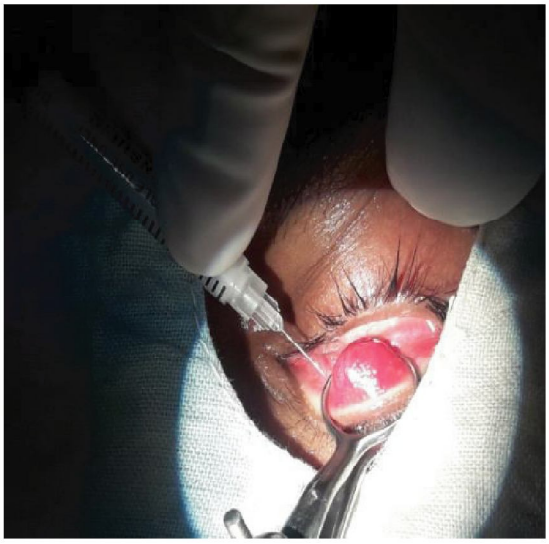

Figure 2: Intralesional steroid injection in lower lid

DISCUSSION

The incidence of chalazion is variable among the literature studies.[3-6] It generally ranges from 0.2% to 0.7%. In the United States, although the exact prevalence was not well-known, but it was commonly encountered among school children and adults between the ages of 30 and 50 years.[7] In Brazil, the incidence was reported to range from 0.2-0.3%.[8] One of the studies conducted in India reported an incidence of 0.24%. The incidence in Nigeria was reported to be 0.7% in one study.[9] Triamcinolone acetonide (Adcortyl) is an aqueous corticosteroid suspension (10mg/ml) with benzyl alcohol, sodium chloride, sodium carboxymethylcellulose and polysorbate. It is used for intra-articular injection of inflamed joints in conditions such as rheumatoid arthritis and for intradermal injection in conditions including acne cysts, psoriatic plaques, lichen planus, and alopecia.[10-12] 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. Furthermore, a transconjunctival approach lessens the risk of inadvertent intradermal

injection when treating a chalazion. 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 (so that patients can drive immediately afterwards). No complications occurred in the trial. A disadvantage is that roughly half of the cases (54%) treated in this way may require a second injection for prompt resolution of the chalazion. However, this percentage is probably less than indicated, as in this trial drop-outs were not included as definite successes. In the great majority of these cases, the lesion had resolved. Furthermore, as the procedure is so quick, there are less total time spent giving two injections than in doing an incision and curettage.

Conflict of interest: None

REFERENCES

1. Rubin ML, Milder B. The fine art of prescribing glasses. Florida: Triad, 1979: 98.
2. Cottrell DG, Bosanquet RC, Fawcett IM. Chalazions: the frequency of spontaneous resolution. Br Med J. 1983; 287: 1595.
3. Al-Faky YH. Epidemiology of benign eyelid lesions in patients presenting to a teaching hospital. Saudi J Ophthalmol. 2012; 26(2): 211-216.
4. Kersten RC, Ewing-Chow D, Kulwin DR, Gallon M. Accuracy of Clinical Diagnosis of Cutaneous Eyelid Lesions. Ophthalmology. 1997; 104(3): 479-484.
5. Hsu HC, Lin HF. Eyelid tumors in children: A clinicopathologic study of a 10-years review in Southern Taiwan. Ophthalmologica. 2004; 218(4): 274-277.
6. Ni Z. Histopathological classification of 3,510 cases with eyelid tumor. Zhonghua Yan KeZaZhi. 1996; 32(6): 435-437.
7. Mindy Ann Smith AEMJ. Hordeolum and Chalazion. In: The Color Atlas of Family Medicine. 2nd ed. USA: McGraw-Hill; 2013.
8. Kumar J, Pathak AK, Verma A, Dwivedi S. Study of Incidence And Risk Factors of Chalazion in Bundelkhand Region. IOSR J Dent Med Sci. 2017; 16(5): 5-8.
9. Otulana T, Bodunde O, Ajibode H. Chalazion, a Benign Eyelid Tumour–The Sagamu Experience. Niger J Ophthalmol. 2008; 16(2): 33-35.
10. Plewig G, Kligman A. Acne, morphogenesis and treatment. New York: Springer, 1975: 294.
11. Fitzpatrick TB, Arndt KA, Clark WH, Eisen AZ, Van Scott EJ, Vaughn JA. Dermatology in general medicine. New York: McGraw-Hill, 1971: 364.
12. Pizzareilo LD, Jakobiec FA, Hofeldt AJ, Podolsky MM, Silvers DN. Intralesional corticosteroid therapy of chalazia. Am J Ophthalmol. 1978; 85: 818-821.