College of Registered Nurses of Saskatchewan

Chalazion and Hordeolum: Adult & Pediatric

Ears, Eyes, Nose, Throat and Mouth

Clinical Decision Tools for RNs with Additional Authorized Practice [RN(AAP)s]

Effective Date: Insert Council Adoption Date

Background

Chalazia (plural of chalazion) are the most common inflammatory lesions of the eyelid (Jordan & Beier, 2021). These are slowly enlarging eyelid nodules, formed by inflammation and obstruction of sebaceous glands. Chalazia can be categorized as either superficial or deep, depending on the glands that are blocked. Inflammation of a meibomian gland leads to a deeper chalazion, whereas inflammation of a Zeis gland leads to a superficial chalazion (Jordan & Beier, 2021; Reinoso, Dunphy, & Porter, 2019). Occasionally, secondary bacterial infection from Staphylococcus aureus may develop (Garrity, 2020). Chalazia can recur, and those that do should be evaluated for malignancy (Jordan & Beier, 2021; Reinoso et al., 2019).

Hordeola (plural of hordeolum; e.g., stye) are localized infections or inflammations of the eyelid margin involving hair follicles of the eyelashes (e.g., external hordeolum) or meibomian glands (e.g., internal hordeolum) which may progress to a chalazion (Lindsley, Nichols, & Dickersin, 2017; Reinoso et al., 2019). Hordeola are usually painful, erythematous, and localized infections (Lindsley et al., 2017; Reinoso et al., 2019). They may produce edema of the entire lid. Purulent material exudes from the eyelash line in external hordeola, while internal hordeola suppurate on the conjunctival surface of the eyelid (Lindsley et al., 2017; Reinoso et al., 2019).

Immediate Consultation Requirements

The RN(AAP) must seek immediate consultation from a physician/NP when any of the following circumstances exist:

- large hordeola with orbital/periorbital cellulitis, and/or
- change in visual acuity (Interprofessional Advisory Group [IPAG], personal communication, August 28, 2019).

Predisposing and Risk Factors

Predisposing and risk factors for chalazion and hordeolum include:

Chalazion
• Occur in all age groups; they are more common in adults presumably because androgenic hormones increase sebum viscosity. Chalazion are uncommon at the extremes of ages, but pediatric cases may be encountered • Recurrent chalazion, particularly in elderly clients, should prompt the practitioner to consider conditions that may masquerade as chalazion (e.g., carcinoma, tuberculosis). • Recurrent chalazion in a child or young adult should prompt an evaluation for viral conjunctivitis (e.g., herpes simplex) and hyper IgE syndrome (Job syndrome).
Hordeolum
• More common in children and adolescents and in clients with rosacea or seborrheic dermatitis.

(Reinoso et al., 2019)

Both conditions can develop in clients who have previously unresolved blepharitis, wear contact lens, who use cosmetics, have poor lid hygiene, are immunosuppressed, and/or have underlying chronic diseases (e.g., diabetes mellitus) (Reinoso et al., 2019).

Health History and Physical Exam

Subjective Findings

The circumstances of the presenting complaint should be determined. These include:

Chalazion
• pea-sized nodule within the eyelid; • slowly developing, painless hard mass; • redness, swelling and pain may be symptoms of initial presentation due to inflammation; • blurry vision if chalazion is large (pressure on the eye globe may cause nystagmus and vision distortion); • conjunctival infection (if associated with conjunctivitis); • tearing may be present (if conjunctiva irritated).
Hordeolum
• localized tender inflammation of the eyelid (external hordeolum) or at the margin of the eyelid with swelling (internal hordeolum), • itching or scaling of eyelid, • chronic redness, • eye irritation, or • localized tenderness and pain.

(Reinoso et al., 2019)

Objective Findings

Visual acuity should be performed for all eye complaints (Reinoso et al., 2019). The signs and symptoms may include:

- Initially chalazion and hordeolum may be tender to touch. With time, chalazion may present as non-tender nodules occurring on the middle portion of the tarsus, away from the lid border, and may be pointing to the inner surface of the tarsus causing pressure on the globe. Eversion of the eyelid may be necessary to visualize the nodule.
- Hordeolum will be erythematous and tender with palpation, drainage from the lesion on the lid margin may be present, and preauricular lymph node enlargement may be noted on palpation (Reinoso et al., 2019).

Differential Diagnosis

The following should be considered as part of the differential diagnosis:

Chalazion
• hordeolum (stye), • blepharitis, or • sebaceous cell carcinoma (very rare).
Hordeolum
• chalazion (may develop from chronic hordeolum), • blepharitis, or • sebaceous cell carcinoma (very rare).

(Jordan & Beier, 2021Reinoso et al., 2019)

Making the Diagnosis

The diagnosis of hordeolum and chalazion is usually a clinical one and usually does not require further workup. The health care provider should be certain that the eyelid lesion is a sterile inflammation that will resolve with limited intervention. Recurrent symptoms or persistent lesions should prompt further investigation.

Investigations and Diagnostic Tests

Investigations and diagnostic tests are typically not needed but a swab for culture and sensitivity should be collected if drainage is present (Reinoso et al., 2019).

Management and Interventions

Goals of Treatment

The primary goals of immediate treatment are to relieve symptoms, prevent infection and visual disturbance. Hordeolum is usually self-limited. Most hordeola eventually point and drain by themselves (within one to two weeks) (Lindsley et al., 2017). A small asymptomatic chalazion does not require treatment and usually resolves spontaneously in a few months. If the chalazion is affecting vision, or if there is a secondary infection, treatment is needed.

Non-Pharmacological Interventions

The RN(AAP) should recommend, as appropriate, the following non-pharmacological options:

Initial treatment of hordeolum and chalazion includes:

- Application of warm, moist compresses (e.g., tea bags) for 10 minutes, qid until the condition is resolved (Lindsley et al., 2017). The client/caregiver should use a clean cloth each time a compress is applied (Lindsley et al., 2017; Reinoso et al., 2019).
- Lid hygiene with a 1:1 dilution of baby shampoo and warm water or commercial products (e.g., Lid-Care ™) bid to qid, and gently scrub the eyelids, followed by a gentle massage of the eyelid (Lindsley et al., 2017; Reinoso et al., 2019; Wu et al., 2018).

Pharmacological Interventions

The pharmacological intervention recommended for the treatment of hordeolum and chalazion is in accordance with the *Lid and Conjunctival Pathology* (Reinoso et al., 2019). It is only prescribed if a secondary bacterial infection is suspected.

	Drug	Dose	Route	Frequency	Duration
Pediatric and Adult					
	Erythromycin 0.5% eye ointment	apply thin application to eyelid margin with a cotton-tipped applicator	topical	q.i.d.	5-7 days

Client and Caregiver Education

The RN(AAP) provides client and caregiver education as follows:

- Counsel about the appropriate use of medications (dose, frequency, application, etc.).
- Stress the importance of not squeezing the hordeolum or chalazion.
- The importance of eyelid hygiene.
- Stress the importance of washing hands and avoid sharing towels, wash clothes, or eyewear to prevent the spread of infection.

- Recommend avoidance of cosmetics during the acute phase (current eye cosmetics should be discarded because they may harbour bacteria and cause recurrent infection).
- Recommend not to wear contact lenses until the infection clears and to use a new pair of contact lenses after the condition resolves.
- Advise that acute inflammation and pain should resolve quickly but the cyst may take time to resolve.
- Instruction that both conditions are recurrent in nature and treatment should be initiated at the first sign of recurrence (Lindsley et al., 2017; Reinoso et al., 2019).

Monitoring and Follow-Up

The RN(AAP) should stress the importance of follow-up if symptoms do not improve with treatment within one week.

Complications

The complications associated with hordeolum and chalazion include development of a secondary infection and/or astigmatism (rare) (Reinoso et al., 2019).

Referral

Refer to a physician/NP if the client presentation is consistent with the *Immediate Consultation Requirements* section and if the chalazion does not resolve within one month for referral to an optometrist for definitive examination and treatment (IPAG, personal communication, August 28, 2019).

References

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