Current Pattern Treatment of Hordeolum by Ophthalmologists in Thailand†

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Objective: *To assess the current pattern of treatment among ophthalmologists in Thailand.*
Material and Method: *A two-page Thai questionnaire was distributed to Thai ophthalmologists' annual meeting. Other questionnaires were sent to the eye institute or conducted by telephone interviews.*
Results: *Five hundred one physicians participated in the present study (49.17%). Warm compression usage was suggested (n = 459; 91.62%). The prescription before I&C was combined topical and oral antibiotics, only oral antibiotics (n = 12; 2.4%), or no oral antibiotics (n = 21; 4.19%). I&C was performed only in cases with flocculated mass in irrespective size (n = 271; 54%), mass size of 4.47 (range 2-10 mm) (n = 124; 24.76%), or requested by patients (n = 13; 2.59%). The prescription after I&C was combined topical and oral antibiotics, no oral antibiotics (n = 74; 14.77%), or no antibiotics at all (n = 14; 2.79%).*
Conclusion: *Warm compression was commonly used. I&C was administered if there was flocculated mass. Antibiotics usage before and after I&C was the same. First choice antibiotics were combination of neomycin, polymyxin, and gramicidine eye drop, chloramphenicol eye ointment, and oral dicloxacillin.*

Keywords: *Hordeolum, Antibiotics, Hordeolum treatment, Ophthalmologist, I&C, Questionnaires*

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Understanding the current treatment pattern of ophthalmologists will assist in the design of the national treatment guideline for hordeolum in Thailand. Even though hordeolum is very common, to the authors' knowledge, there is no recommended standard treatment guideline for this disorder. There is scarce information on the treatment for hordeolum and the most frustrating part is that the conclusions tend to be vague and sometimes ungeneralizable about the use of antibiotics. Therefore, the authors decided to assess the current pattern of hordeolum treatment among ophthalmologists in Thailand.

Material and Method

The authors designed a two-page Thai questionnaire that was distributed to ophthalmologists attending the Royal College of Ophthalmologists of Thailand's annual meeting held on July 25 to 27, 2008. This was the best strategy to obtain filled-out questionnaires from as many registered ophthalmologists or resident-in-training in a short time. Questions consisted of physician's general data and hordeolum treatment. Aside from the annual meeting, the authors also sent the questionnaires to the eye institutes or conducted telephone interviews.

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Results

One thousand nineteen questionnaires were given to 863 ophthalmologists and 156 residents-in-training. Five hundred one answered the questionnaires (49.17%). There were 247 male physicians and 254 female physicians. The mean age of the participants was 37.27 years (range 25-71). Eighty percent of them were younger than 40 years old. There were no age data for 96 questionnaires. Most of them (80%) worked in state-run institutions. Fifty-eight percent of them were general practicing ophthalmologists.

In regards to hordeolum treatment, warm compression usage varied according to the ophthalmologists. Three hundred eighty eight (77.45%) always recommended warm compressions, 71 (14.17%) admitted to intermittent use, and 42 (8.38%) never used this method. The authors observed that the first line medications for hordeolum treatment are shown in Table 1-3. Before incisional and curettage (I&C), the combination of topical and oral antibiotics was preferred by physicians. However, 12 (2.4%) physicians prescribed only oral antibiotics with no topical medications, and 21 (4.19%) chose not to prescribe oral antibiotics to the patients (Table 3).

As for I&C, 271 (54%) ophthalmologists would use this procedure only in cases with flocculated or pus containing mass, irrespective of mass size whereas others (24.76%) opted to use it when the mass size was 4.47 (range 2-10 mm, median 5 mm). In contrast, some will recommend I&C if the mass duration was more than five days (range 3-30 days). Only 13 out of 501 (2.59%) will send their patients to get I&C if the patients requested for the procedure. Therefore, 74 (14.77%) physicians refused to prescribe any oral antibiotics. However, eye drops or eye ointments were always prescribed as previously stated. It is interesting to point out that only 14 (2.79%) ophthalmologists chose not to prescribe any antibiotics to the patients.

Table 1. Type of first line eye drop which ophthalmologists use before and after I&C (n = 501)

Eye drop	Before I&C n (%)	After I&C n (%)
Combined antibiotics*	252 (50.30)	225 (44.91)
Tobramycin	93 (18.56)	82 (16.37)
Chloramphenicol	79 (15.77)	73 (14.57)
Combined antibiotics-steroids	19 (3.79)	19 (3.79)
Moxifloxacin	10 (2.00)	8 (1.60)
Ciprofloxacin	6 (1.20)	6 (1.20)
Levofloxacin	1 (0.20)	1 (0.20)
Total antibiotics use	460 (91.82)	414 (82.63)
None	41 (8.18)	87 (17.37)

* Combined neomycin sulfate, polymyxin B sulfate and gramicidin, I&C = incisional and curettage

Table 2. Type of first line eye gel/ointment which ophthalmologists use before and after I&C (n = 501)

Eye gel/ointment	Before I&C n (%)	After I&C n (%)
Chloramphenicol	150 (29.94)	141 (28.14)
Tetracycline	104 (20.76)	110 (21.96)
Fucithalmic acid	90 (17.96)	84 (16.77)
Tobramycin	7 (1.40)	7 (1.40)
Combined antibiotics-steroids	7 (1.40)	12 (2.40)
Total antibiotics use	358 (71.46)	354 (70.66)
None	143 (28.54)	147 (29.34)

I&C = incisional and curettage

Table 3. Type of first line oral antibiotics which ophthalmologists use before and after I&C (n = 501)

Oral antibiotics	Before I&C n (%)	After I&C n (%)
Dicloxacillin	397 (79.24)	354 (70.66)
Amoxycilin	64 (12.77)	55 (10.98)
Bactrim	8 (1.60)	7 (1.40)
Roxithromycin	4 (0.80)	4 (0.80)
Ciprofloxacin	3 (0.60)	2 (0.40)
Doxycyclin	2 (0.40)	3 (0.60)
Cefalexin	1 (0.20)	1 (0.20)
Combined with steroids	1 (0.20)	1 (0.20)
Total antibiotics use	480 (95.81)	427 (85.23)
None	21 (4.19)	74 (14.77)

I&C = Incisional and curettage

Discussion

Since the treatment for hordeolum is very simple, hence there are several regimen variations used by many practicing ophthalmologists. It is generally agreed today that, based on several literature sources, the most commonly recommended treatment for hordeolum is warm compression several times a day for 10 minutes because the process is usually self-limited and will spontaneously resolve by itself after compression within 1 to 2 weeks[1-7]. Unfortunately, the use of antibiotics remains controversial. For example, Fraunfelder FT would administer topical broad-spectrum antibiotics after I&C or in recurrent cases[8]. On the other hand, some believe that systemic antibiotics should not be used at all unless there is significant cellutitis[1,4]. Similarly, Wilkie JL stated that local treatment should be minimum, especially where antibiotic usage is of concern[6]. Furthermore, he objected to the use of I&C by declaring that it will not allow the patient to develop his own resistance, which will contribute to future recurrent hordeolum. He stated that analgesics and warm compressions are

sufficient in the treatment of hordeolum[6]. Concerning antibiotic treatment post I&C, the authors have previously shown that there may be no efficacy difference between the combined antibiotic ophthalmic solution and artificial tears[3]. Because of this, many ophthalmologists tend to use different regimens based on their experiences. This was clearly seen through the questionnaires the authors received from the physicians throughout Thailand. Therefore, physicians may over treat the patient with the many options available. This will contribute to the rise of drug resistant Staphylococcus aureus or inadvertent side effects. Even though there have been no reports of any drug resistance pathogens, the authors need to be vigilant in prescribing medications to the patients with hordeolum. Should any drug resistance pathogens arise, it would be detrimental, especially for developing countries with limited resources. Aside from that, in Thailand, the cost of medication is the upmost concern for both the physicians and patients. If there is a prevalence of drug resistant pathogens, this will limit accessible medicationsand will negatively affect the health care system. The cost effectiveness and efficiency of hordeolum treatment in Thailand needs to be studied in the future. Therefore, in this manuscript, the authors report the current treatment pattern for hordeolum among ophthalmologists in Thailand. The authors hope that this information will be a database of various antibiotic used for hordeolum treatment to assist in the design and creation of the national guideline for the treatment of hordeolum and reduce the cost of medications and drug resistant organisms.

Conclusion

In the present study, the authors assessed the pattern of treatment and discovered that warm compression was usually advised before any I&C was performed, I&C was done only if there was any flocculated or pus containing mass, irrespective of mass size, and the pattern of antibiotic usage pre- and post-I&C were the same. The first choice antibiotics that Thai ophthalmologists chose to use were a combination of neomycin, polymyxin, and gramicidine containing eye drop, chloramphenicol eye ointment, or oral dicloxacillin.

Potential conflicts of interest

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แนวทางการรักษาภาวะต่อมไขมันใต้เปลือกตาอักเสบ (กุ้งยิง) ในปัจจุบันโดยจักษุแพทย์ในประเทศไทย

ชุติมา พานิชย์เจริญ, พริมา หิรัญวิวัฒน์กุล

วัตถุประสงค์: *เพื่อประเมินถึงแนวทางการรักษาภาวะต่อมไขมันใต้เปลือกตาอักเสบ (กุ้งยิง) ในปัจจุบันโดยจักษุแพทย์ในประเทศไทย*

วัสดุและวิธีการ: *ได้จัดทำแบบสอบถามจำนวน 2 หน้า โดยทำการสอบถามจักษุแพทย์ในงานประชุมราชวิทยาลัยจักษุแพทย์แห่งประเทศไทย ประจำปี พ.ศ. 2551 หลังจากงานประชุมจัดส่งแบบสอบถามไปตามโรงพยาบาลต่าง ๆ และสอบถามทางโทรศัพท์*

ผลการศึกษา: *ข้อมูลได้จากจักษุแพทย์ 501 ราย คิดเป็นร้อยละ 49.17 มีจักษุแพทย์แนะนำการประคบอุ่นกับผู้ป่วย 459 ราย (ร้อยละ 91.62) ยาที่จักษุแพทย์เลือกใช้ก่อนทำการเจาะระบายหนองคือ ส่วนใหญ่ให้ยาปฏิชีวนะชนิดรับประทานร่วมกับหยอดหรือป้าย มีบางส่วนให้เฉพาะยารับประทาน (ร้อยละ 2.4) และไม่ให้ยาปฏิชีวนะรูปแบบรับประทาน (ร้อยละ 4.19) จักษุแพทย์ 271 ราย (ร้อยละ 54) จะทำการเจาะระบายหนองกรณีที่คลำก้อนได้และมีลักษณะเหมือนมีหนอง โดยไม่คำนึงถึงขนาดของก้อน ในขณะที่ร้อยละ 24.76 จะทำการเจาะระบายหนองกรณีที่ก้อนมีขนาดใหญ่กว่าค่าเฉลี่ย 4.47 มิลลิเมตร (2-10 มิลลิเมตร) และมี 13 ราย (ร้อยละ 2.59) ทำการเจาะระบายหนอง กรณีที่ผู้ป่วยต้องการหลังทำการเจาะระบายหนอง ยาที่จักษุแพทย์เลือกใช้ส่วนใหญ่ยังคงให้ยาปฏิชีวนะรูปแบบหยอดหรือป้ายและรับประทาน มีร้อยละ14.77 ไม่ให้ยาปฏิชีวนะรูปแบบรับประทาน และมี 14 ราย (ร้อยละ 2.49) ไม่ให้ยาปฏิชีวนะ*

สรุป: *จักษุแพทย์ส่วนใหญ่แนะนำเรื่องการประคบอุ่น และเลือกที่จะทำการเจาะระบายหนองกรณีที่คลำก้อนได้และมีลักษณะเหมือนมีหนองด้านใน ยาปฏิชีวนะที่จักษุแพทย์ส่วนใหญ่เลือกใช้เป็นไปในทางเดียวกันทั้งก่อนและหลังทำการเจาะระบายหนอง โดยยาปฏิชีวนะที่เลือกใช้มากคือ ยาหยอดตาชนิดผสมระหว่างนีโอมัยซิน, โพลีมิกซิน และกรามิซิดิน ยาป้ายตาคลอแรมเฟนิคอล ยารับประทานไดคลอกซาซิลิน*