

Clinical & Refractive Optometry is pleased to present this continuing education (CE) article by Dr. Ron Melton and Dr. Randall Thomas entitled **Parinaud's Oculo-Glandular Syndrome**. In order to obtain 1-hour of COPE-approved CE credit, please refer to page 304 for complete instructions.

Parinaud's Oculo-Glandular Syndrome

Ron Melton, OD; Randall Thomas, OD

Subjective

A 23-year-old female presents with a moderately irritated left red eye of four days duration. She has also noticed some swelling on the left side of her face. As we examined her, part of our ongoing differential diagnosis caused us to continue the history. Upon asking her if she had been around any cats, she said she had eight of them and that one of her kittens had lightly scratched her face two weeks earlier.

Objective

- 2+ left red eye
- Grossly visible, somewhat tender, preauricular lymphadenopathy left side (Fig. 1)
- Clear cornea
- 2+ chemosis OS conjunctiva

Assessment

- Parinaud's oculo-glandular syndrome secondary to "cat-scratch disease"

Plan

- Discuss with patient the probable cause of her affliction and the natural history of the disease
- Lotemax q.i.d. OS x 1 week
- Acetaminophen p.r.n. for pain and fever
- Warm soaks about q.2h over the swollen lymphadenopathy for a few days
- Return in 4 to 5 days for follow-up, sooner if any worsening



Fig. 1 Note the "grossly visible lymphadenopathy" seen as an expression of Parinaud's oculo-glandular syndrome.

FOLLOW-UP VISIT

Subjective

- At the follow-up visit 4 days later, all was well within expected ranges

Objective

- The eye was 80% improved
- Preauricular swelling was reduced 50%

Assessment

- Nicely resolving Parinaud's oculo-glandular syndrome

Plan

- Continue with Lotemax b.i.d. OS for another 7 days.
- Continue warm soaks 3 to 4 times a day for another 7 days

COMMENT: There are numerous causes for this oculo-glandular syndrome; by far the most common is cat-scratch disease. The causative microorganism was identified and reported in the literature in the 1990s. It is *Bartonella henselae*, a gram negative bacilli (commonly residing in cats) belonging to the order Rickettsiales. Following a bite,

R. Melton, R. Thomas — Adjunct faculty members at the Pennsylvania, Pacific University and SUNY Colleges of Optometry; Consultants to the American Optometric Association and Fellows of the American Academy of Optometry; both are in clinical practice in North Carolina. Recipients of the Glaucoma Educators of the Year Award presented by the American Academy of Optometry.

scratch, or even a lick, these micro-organisms can gain access to tissues and result in this disorder.

Most patients resolve spontaneously in several days and only supportive therapy is needed. With severe lymphadenopathy, oral doxycycline may be indicated.

GENERAL OBSERVATIONS

- Uncommon cause of unilateral red eye
- Usually seen in people under age 30
- Will self-limit in about six weeks if not treated
- Most common cause is cat-scratch disease. A history of cat scratch, bite, or lick during the past 2 to 4 weeks is helpful in making this diagnosis.
- The etiologic microorganism of cat-scratch disease has only recently been determined to be Bartonella, a gram negative bacilli belonging to the order Rickettsiales.
- A less common cause is tularemia. A history of intimate contact with rabbits, rodents, or ticks is generally associated with this etiology. This causative agent generally results in a sicker patient than seen with cat-scratch etiology.

- Cardinal clinical findings include:
 - unilateral palpebral conjunctival granulomatous nodules, chemosis, and injection
 - grossly visible preauricular lymphadenopathy (and/or submandibular lymphadenopathy)
 - discharge is usually minimal and not a distinguishing feature
- Therapy
 - palliative in nature
 - warm compresses to eye and lymph nodes
 - mild vasoconstrictor/mild corticosteroid if needed
 - acetaminophen for analgesia and antipyresis (fever) p.r.n.
 - ± p.o. doxycycline or Zithromax
 - ± topical Zylet or Tobradex

Disclaimer: Not every detail of every case is discussed, rather the key clinical findings are described. For example, if nothing is said about the corneal status, you should assume that the cornea is normal, etc. When vision is recorded, it should be assumed to be best corrected or pinholed. Regarding therapy, we show how we treated the particular case. Given that medicine is an art, as well as a science, therapy will — and often does — vary with each unique patient presentation depending on severity, known drug allergies, prior treatment, response to therapy, etc.



INSTRUCTIONS FOR 1-HOUR OF CE CREDIT

In order to obtain 1-hour of COPE-approved CE credit, please follow these steps:

- Fill in the identification section and answer the 10 multiple choice questions in this CE credit application form
- Prepare a cheque for \$25.00 made out to Medicconcept
- Mail your completed CE credit application form and cheque to the Journal at: *Clinical & Refractive Optometry*, 3333 Cote Vertu Blvd., Suite 300, St. Laurent, Quebec H4R 2N1

Your answers will be sent for marking to the School of Optometry, University of Montreal, Quebec. If you score 70% or more, a COPE-approved CE Credit Certificate will be issued by the University of Montreal and *Clinical & Refractive Optometry* for your records and display in your office.

IDENTIFICATION

Name: First _____ Last _____

Address: _____
Number Street Suite

_____ City Province Postal Code

Office Phone: () _____ Fax: () _____ e-mail: _____

Registration Number: _____

QUESTIONNAIRE

Parinaud's Oculo-Glandular Syndrome

Ron Melton, OD; Randall Thomas, OD

1. Upon presentation, all of these findings were true, **EXCEPT**:
 - Grossly visible lymphadenopathy left side
 - Clear cornea
 - 2+ left red eye
 - 2+ chemosis OD conjunctiva
2. Which of the following statements about this syndrome is **FALSE**?
 - It is a common cause of unilateral red eye
 - Its incidence is usually in individuals < age 30
 - Its most common cause is cat-scratch disease
 - A less common cause is tularemia
3. Which of the following symptoms does **NOT** normally accompany this condition?
 - Pain
 - Swelling
 - Numbness in the effected area
 - Redness in the affected eye
4. Which of the following was prescribed as treatment in this case?
 - Lotemax q.i.d. OS x 1 week
 - Acetaminophen p.r.n. for pain and fever
 - Warm soaks about q.2h for a few days
 - All of the above

5. Which of the following does **NOT** describe the patient at 4-day follow-up?
 - Preauricular swelling had not diminished
 - The eye was 80% improved
 - Lotemax b.i.d. OS was continued for another 7 days
 - Warm soaks 3-4 times a day were recommended for another 7 days

6. Which of the following statements is **FALSE**?
 - The etiologic microorganism of cat-scratch disease is Bartonella
 - Bartonella is a gram negative bacilli belonging to the order Rickettsiales
 - Parinaud's oculo-glandular syndrome will self-limit in roughly six weeks if not treated
 - None of the above

7. All of the following statements are true of this condition, **EXCEPT**:
 - A common finding is submandibular lymphadenopathy
 - Unilateral palpebral conjunctival granulomatous nodules are characteristic of the syndrome
 - Tularemia etiology generally results in more serious sickness than Bartonella etiology
 - Ocular discharge is a common characteristic

8. Which of the following statements describes therapy in such cases?
 - It is palliative
 - It comprises warm compresses to the eye and lymph nodes
 - Mild corticosteroids may be prescribed if needed
 - All of the above

9. In which type of case should oral doxycycline be prescribed?
 - In all cases, regardless of their severity
 - Only if healing has not taken place 1-month post-scratch
 - Only in cases of recurrent cat-scratching
 - None of the above

10. All of the following statements are true, **EXCEPT**:
 - Oculo-glandular syndrome has numerous causes
 - The Bartonella henselae bacilli remain dormant in the tissues and can reactivate at any time
 - The Bartonella henselae bacilli can enter human tissues following even a cat lick
 - A cat bite 2 to 4 weeks prior to symptoms points to a diagnosis of this syndrome