

Clinical & Refractive Optometry is pleased to present this continuing education (CE) article by Dr. Ron Melton and Dr. Randall Thomas entitled **Trichotillomania**. In order to obtain 2-hours of COPE-approved CE credit, please refer to page 218 for complete instructions.

Trichotillomania

Ron Melton, OD; Randall Thomas, OD

SUBJECTIVE

A 26-year-old Caucasian female presented with a sharp pain to her left eye upon awakening in the morning. During the day, the pain had subsided but the left eye still had a foreign body sensation. The patient has had no previous ocular problems and has never had an eye examination. There is a family history of a grandmother with glaucoma. She is taking birth control pills and has no known drug allergies.

OBJECTIVE

- Visual acuity uncorrected: OU 6/6 (20/20)
- Gross observation: hard to miss the heavy eyeliner covering the eyelid margins (Fig. 1), with a noticeable lack of eyelashes on both the upper and lower lids (Fig. 2)
- Lids: upper and lower eyelashes missing (Fig. 3); on normal lid closure there is 1 mm lagophthalmus OU (Fig. 4), with scattered broken eyelash stubs to the eyelid margins (Fig. 5)
- Conjunctiva: no significant injection OU
- Cornea: 0.5 mm epithelial defect at the inferior third of the OS (Fig. 6) that stains mildly with fluorescein dye (Fig. 7); decreased tear break-up time to 7 seconds OU
- Anterior chamber: deep and quiet OU
- Tension by applanation: 16/16 at 4:00 p.m.
- Upon questioning the patient further about the unusual clinical finding of missing eyelashes, she confessed that since the age of eight years, she has had a habit of continually pulling out her eyelashes

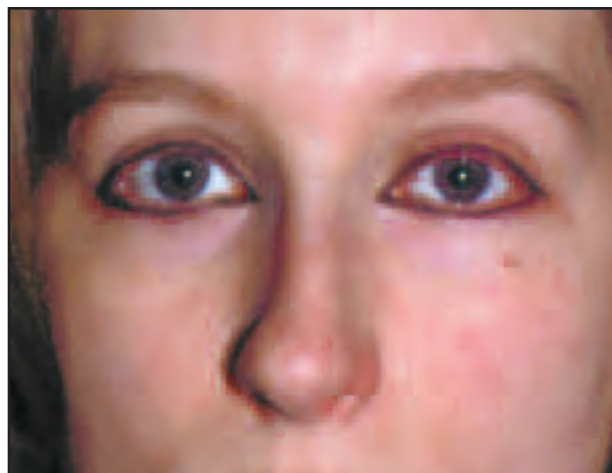


Fig. 1 Notice in the full face view that the patient's eyeliner helps to hide the fact that the patient is missing her eyelashes.

ASSESSMENT

- Trichotillomania
- Corneal erosion OS
- Lagophthalmus OU

PLAN

- Patient counseling about the role the eyelashes play in helping to maintain healthy eyes and the need to stop pulling out her eyelashes. Patient said she would try to keep her hands away from her eyes over the next week
- Recommended Systane artificial tears t.i.d. OS and NaCl 5% ophthalmic ointment at bedtime for one week
- A follow-up visit was scheduled for one week or sooner if the irritation to the OS worsened

Follow-up: One Week

- The cornea defect OS had completely resolved (Fig. 8) with no evidence of fluorescein stain (Fig. 9)
- The patient had been very compliant with her gel and ointment but had had no success at all keeping her hands away from her eyelashes

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Fig. 2 On closer observation, it becomes clear that the patient is missing her eyelashes on the upper and lower lids of both eyes. Also note that there is no significant injection to the bulbar conjunctiva OS, even though the patient has a symptomatic corneal defect.

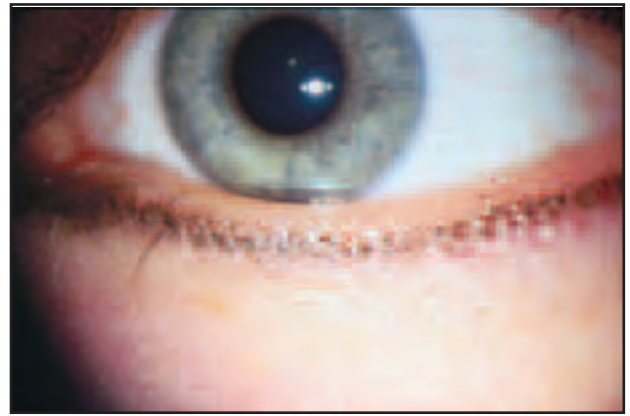


Fig. 3 A close-up view of the left lower lid margin shows the missing eyelashes secondary to the patient's irresistible urge to pull out her eyelashes.



Fig. 4 Note on normal relaxed eyelid closure that the patient exhibits a lagophthalmus of approximately 1 mm in each eye.



Fig. 5 A close-up view of the patient's left eyelids on normal closure reveals the 1-mm lagophthalmus. Also note the subtle multiple broken eyelash stubs, without any evidence of skin disease. This is a characteristic finding in trichotillomania.

- Recommend patient to stop the NaCl 5% ophthalmic ointment and use Systane drops at least t.i.d. OU and Systane Free Liquid Gel at bedtime long term
- Psychological counseling was recommended in order to help with this impulse control disorder that had been going on for years
- She was to follow up with me for a complete eye examination in three months. Hopefully at that time she would have some fully grown eyelashes for the first time in 19 years. She left the office very excited about our optimistic discussion

Follow-up: Three Months

- Patient failed to show for her routine eye examination
- She was called and reminded of her appointment, but hasn't shown up for further visits even after we indicated that there would be no charge

Comments: This patient represents the “it ain’t rare if it’s in your chair” scenario. Her obsessive habit of pulling out her eyelashes has been going on for 19 years without anyone other than a family member discussing her habit. Wearing makeup has allowed the patient to hide her exposed lid margins with eyeliner. Trichotillomania is an impulse-control disorder in which the patient has an obsessive compulsion to pull out his or her hair. The most common location for this hair-pulling is the top of the head, followed by the eyelashes and eyebrows.

A careful history should be obtained to make sure the loss of eyelashes is not secondary to a systemic disease association. Skin diseases, thyroid disorders, drug side effects, blepharitis, calcium deficiency, etc. are possible etiologies for hair loss involving the eyelashes. This case was straightforward since the patient volunteered that she had been pulling out her eyelashes. Other patients may



Fig. 6 There is a small corneal epithelial defect that is seen on the inferior third of the corneal surface. This is a common location for a spontaneous corneal erosion.

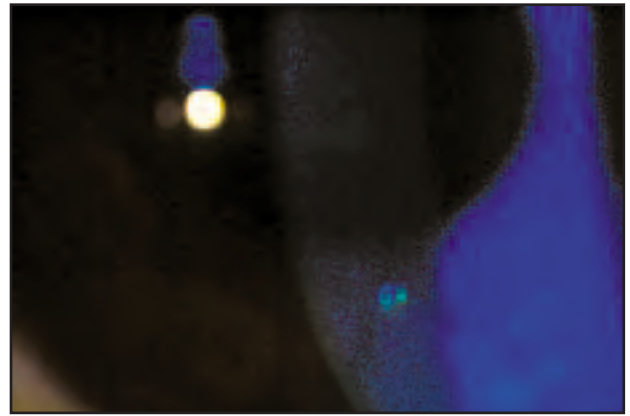


Fig. 7 The same corneal epithelial defect is seen clearly with the instillation of fluorescein dye.



Fig. 8 Notice that after a week of therapy for the corneal erosion, the optic section shows no corneal defect remaining



Fig. 9 Instillation of fluorescein dye shows that the corneal epithelial defect has resolved with the sodium chloride 5% ophthalmic ointment and the artificial tear gel during the day.

not be as cooperative. Stress may play a big part in this condition.

It is important to perform a careful clinical examination. An important pearl is to look for multiple broken eyelash stubs, which are easily identifiable under the slit lamp. The eyelash stubs, without any evidence of skin disease, should give one a high level suspicion for the diagnosis of trichotillomania.

It is interesting that this patient's main reason for the office visit was totally unrelated to the trichotillomania. The sudden onset of pain upon awakening is pathognomonic for recurrent corneal erosion. Since this was the patient's first known episode of spontaneous epithelial breakdown, the patient was fortunate that there was only a minor epithelial defect. A contributing factor to the possible corneal erosion in this case would include her obvious lagophthalmus. The fact that the lack of

eyelashes exposes the cornea to the environment may also contribute to the episode of corneal erosion. Hopefully, long term, the patient will only need artificial tear lubrication in the form of drops and the gel at bedtime in order to prevent further recurrent corneal erosions.

GENERAL OBSERVATIONS

- Trichotillomania is the irresistible urge to pull one's hair out and a sense of relief after the hair has been pulled
- Classified as an impulse-control disorder
- The most common target site is the top of the scalp; the second most common sites are the eyelashes and eyebrows
- The condition is more common in females, who represent approximately 75% of the reported cases
- Mean age onset is 8 years for males and 12 years for females

- Differential diagnosis of eyelash loss includes skin disease, thyroid imbalance, drug side effects, lid inflammation, etc.
- Trichotillomania is often initially misdiagnosed as alopecia areata — a dermatologic condition represented by patchy areas of hair loss. It is different from trichotillomania in that there are usually other areas of hair loss. Also in alopecia areata, the eyelash hairs at the lid margins are easily removed
- Careful history and ocular health examination is important in helping to make the diagnosis of trichotillomania
- A key finding is multiple broken eyelash stubs at the lid margins without evidence of skin disease
- The diagnosis is often difficult because these patients frequently deny their compulsive habit of pulling their eyelashes or eyebrows. Female patients often wear makeup to conceal the areas of hair loss
- This habitual disorder may be triggered by stressful events such as studying for a test, parental divorce, death in the family, etc. Depression may also be an associated factor

- Patients with trichotillomania often engage in repeated methods and rituals for both the hair removal and disposal

TREATMENT

- Typically provided by a psychiatrist or psychologist
- The most common treatment consists of a combination drug and behavioral therapy
- Serotonin re-uptake inhibitors may be beneficial
- Dermatology consultation may be helpful to determine if there are other areas of hair loss or skin disease that may provide the etiology for the condition

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.



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QUESTIONNAIRE

Trichotillomania

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1. Which of the following was **NOT** an initial finding in this case?
 - Corneal erosion OS
 - Lacrimal obstruction by dry eye
 - Lagophthalmus OU
 - Trichotillomania
2. Identify the **FALSE** statement regarding the patient's objective findings:
 - Tear break-up-time 17 mm OU
 - 1-mm lagophthalmus OU on normal lid closure
 - Tension by applanation: 16/16 at 4:00 p.m.
 - Uncorrected visual acuity: OU 6/6 (20/20)
3. What are possible causes of trichotillomania?
 - Psychological trauma
 - Stress
 - Depression
 - All of the above
4. Which of the following is **NOT** included in differential diagnosis?
 - Long-standing, untreated ocular allergy
 - Thyroid imbalance
 - Skin disease
 - Drug side effects

5. Which of the following statements is **FALSE**?
 - Behavioral therapy combined with drug therapy is a common avenue of treatment
 - Other areas of hair loss besides eyelashes are not typical
 - Behavioral therapy is rarely successful in treating trichotillomania
 - Serotonin re-uptake inhibitor therapy may be beneficial

6. In what way does trichotillomania differ from alopecia areata?
 - Alopecia areata is a dermatological condition, whereas trichotillomania is not
 - With alopecia areata, there is usually more than one area of hair loss
 - In alopecia areata, eyelash hairs at the lid margins are easily removed
 - All of the above

7. Which of the following statements is **FALSE**?
 - Patients often experience a sense of relief when eyelashes are pulled out
 - Patients often experience remorse when eyelashes are pulled out
 - Patients often deny their habit of pulling out eyelashes
 - Patients with trichotillomania always dislike wearing eye makeup

8. Which of the following statements is **TRUE**?
 - Patients with this condition usually pull out only the upper eyelashes, not the lower
 - Trichotillomania occurs more frequently in men than in women
 - Trichotillomania has been found to occur in individuals who have experienced childhood trauma
 - None of the above

9. All of the following statements describe this case, **EXCEPT**:
 - The patient's sudden onset of pain upon awakening was pathognomonic for recurrent corneal erosion
 - There was no significant injection to the bulbar conjunctiva OS
 - Upon examination, the patient was found to have a corneal defect
 - The patient showed corollary incidence of skin disease

10. Which of the following does **NOT** describe the treatment prescribed after the initial visit?
 - Systane artificial tears t.i.d. were prescribed
 - NaCl 5% ophthalmic ointment at bedtime was prescribed for one week
 - The patient was told to return for a follow-up visit in one month
 - The patient was told to return for a follow-up visit in one week

11. Which of the following statements does **NOT** describe the patient at follow-up one week?
 - The corneal defect OS had completely resolved
 - The patient was found to have been noncompliant with gel and ointment
 - The patient continued to pull out her eyelashes
 - The patient was told to discontinue use of NaCl 5% ointment

12. Which of the following statements is **FALSE**?
 - Calcium deficiency may cause this condition
 - Trichotillomania is an obsessive-compulsive disorder
 - The most common location for hair-pulling is the top of the head
 - None of the above

13. Which of the following statements is **TRUE**?
 - The patient's lash-pulling was unrelated to the finding of corneal erosion
 - The corneal erosion may have been partly due to the patient's lagophthalmus
 - Exposure to the environment may contribute to corneal erosion
 - All of the above

14. Which of the following statements does **NOT** accurately describe trichotillomania?
- It may involve pulling out of the eyebrow hair
 - Mean age onset for females is 12 years
 - People frequently deny having this condition
 - Most people outgrow the condition by their mid-thirties
15. Which of the following is a risk factor for Trichotillomania?
- Family history of the condition
 - Family history of glaucoma
 - Age twenties and thirties
 - None of the above
16. Which of the following statements is **FALSE**?
- Females represent 75% of sufferers of this condition
 - Trichotillomania is easily distinguishable from alopecia areata
 - Patients with this condition often engage in repeated rituals for hair disposal
 - People with this condition often seek help as it causes extreme pain in the lid margins
17. Identify the statement that accurately describes follow-up at three months:
- The patient did not return for her routine eye examination
 - Examination revealed resolution of the corneal defect
 - The patient's upper eyelashes were found to be growing in
 - The patient returned for follow-up but refused further use of the artificial tears
18. Which of the following statements does **NOT** describe the patient's corneal exam on initial presentation?
- 0.5 mm corneal defect at the inferior third of the OS
 - Subtle multiple broke upper eyelash stubs
 - No evidence of skin disease
 - Normal tear break-up time
19. All of the following statements are true, **EXCEPT**:
- The patient thought her problem was related to hypothyroidism
 - The patient had been pulling out her eyelashes since the age of eight years
 - The patient wore heavy makeup to conceal the areas of hair loss
 - Mean onset of the condition is 12 years for females
20. Which of the following statements does **NOT** describe the patient in this case?
- There is a family history of glaucoma
 - She is taking birth control pills
 - Her eyelash-pulling habit commencing within the past five years
 - She had not previously had an eye examination