



# Pediculosis of the Eyelids: A Case Report

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## Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Case Report

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## ABSTRACT

Pediculosis of the eyelids is a rare but significant condition resulting from infestation by lice, usually head lice. Although often overlooked, this condition can lead to bothersome symptoms and complications. This article explores the etiology, clinical manifestations, diagnostic methods and therapeutic approaches for eyelid pediculosis.

**Keywords:** Eyelid pediculosis; etiology; lice.

## 1. INTRODUCTION

Human pediculosis is caused by hematophagous lice, which are transmitted between individuals

via direct and/or indirect contact (Bozic & Krajacic, 2022). Despite the public health importance of louse infestation, information concerning the global burden of pediculosis and

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the epidemiological landscape of louse-borne diseases is limited (Fu et al., 2022; Oguz & Kilic, 2006; Rundle & Hughes, 1993). Lice infestation on the human body (also known as pediculosis) is very common. Cases number in the hundreds of millions worldwide (El-Bahnasawy et al., 2012; Hogan et al., 1991). Pediculosis of the eyelids, or lice infestation of the eyelids, is a rare phenomenon that deserves special attention because of its potential impact on patients' quality of life (Cotté & Dufour, 2022). Lice, in particular *Pediculus humanus capitis*, are commonly associated with hair, but their presence on the eyelids is less often reported (Diniz & Lima, 2021). This article looks at the current understanding of this condition, focusing on etiology, symptoms, diagnosis and treatment.

## 2. CASE PRESENTATION

A 7-year-old child presented to our clinic with itching of the scalp and eyelids. Ophthalmological examination revealed a visual

acuity of 10/10, with lice at the base of the eyelashes, and the rest of the examination was unremarkable. Scalp examination revealed the same aspect, and we diagnosed pediculosis of the scalp and eyelashes. We treated the patient with a 5% permethrin lotion for 3 weeks for his scalp, with shaving of the eyelashes, and a dilute betadine preparation for his eyelid pediculosis. His scalp symptoms resolved, but 2 weeks after starting treatment, he developed pruritus on his eyelid; 3 weeks after completing treatment for his scalp, he presented again for re-evaluation. No family member had suffered from pediculosis, and on examination he had numerous blackish-brown granules attached to the eyelashes and eyelids of both eyes (Fig. 1). Dermoscopic examination revealed a large number of ovoid lice and nits on the eyelashes and eyelids (Fig. 2). We diagnosed palpebral phthiasis. We treated the patient with 1% permethrin lotion and trimmed her eyelashes, which completely eliminated the pediculosis.



**Fig. 1.** blackish-brown granule attached to the eyelashes and eyelids of the left eye of a 7-year-old child with palpebral phthiasis



**Fig. 2.** lice found on the patient's scalp

### 3. DISCUSSION

#### 3.1 Etiology

Pediculosis of the eyelids is mainly caused by *Pediculus humanus capitis* and, less frequently, by body louse species. Modes of transmission include:

- Direct contact: Skin-to-skin contact is the main vector of transmission.
- Shared objects: Sharing towels, cushions or hairbrushes.

The prevalence of this infestation is difficult to establish due to its rarity, but some studies suggest that it may be more prevalent among children and in environments where hygiene is compromised (Gupta & Mhatre, 2023).

#### 3.2 Clinical Manifestations

Symptoms of pediculosis of the eyelids include:

- Itching: Itching is often the main symptom, caused by lice saliva.
- Redness and inflammation: Irritation from scratching can lead to rashes.
- Possible complications: Prolonged irritation can lead to secondary infections or conjunctivitis.

#### 3.3 Diagnosis

Diagnosis of pediculosis of the eyelids is based on:

- Clinical examination: Observation of the eyelids and eyelashes is crucial for identifying lice or their eggs (nits).
- Slit lamp: This tool can help visualize lice and assess the condition of surrounding eye tissue.
- Swabs: In some cases, samples may be taken to rule out other causes of irritation.

Treatment options include:

- Topical insecticides: Solutions containing permethrin or other insecticidal agents can be applied directly to the eyelids, taking care to avoid contact with the eyes (Heukelbach & Martins, 2023).
- Hygiene: Good hygiene, including frequent washing of towels and sheets, is essential to prevent reinfestation.
- Follow-up: Regular follow-up is necessary to ensure that infestation is completely eradicated.

#### 3.4 Prevention

Preventive measures include:

- Education: Making parents and educators aware of the risks of transmission.
- Case management: Protocols for rapid treatment of cases identified in school or community settings.

### 4. CONCLUSION

Pediculosis of the eyelids, although rare, requires appropriate recognition and treatment. Raising awareness among healthcare professionals and the general public is essential to prevent and treat this condition effectively.

#### CONSENT

As per international standards, parental written consent has been collected and preserved by the author(s).

#### ETHICAL APPROVAL

It is not applicable.

#### DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of this manuscript.

#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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