

# Persistent Lower Lid Swelling in an Infant – Impacted Foreign Body!

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## ABSTRACT

Ophthalmologists, including general practitioners definitely encounter ocular foreign bodies in their clinics. The conjunctival fornices are potential sites of impaction. We report a case of a 9-month infant boy who was referred to us for a persistent lower lid swelling for one month. He had already been to an eye specialist before presenting to us. Upon examination, a round, pink coloured, toy cart-wheel came out of his lower eye lid of the right eye. Surprisingly, there was no associated conjunctival or adnexal damage. The authors wish to emphasize the importance of taking a thorough history and adequate general physical examination. A missing part of a toy, elucidated on history, should always raise the suspicion among parents and/or care givers for a probable foreign body in infants and children.

**Key Words:** Foreign body, ocular trauma, eyelid.

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## INTRODUCTION

Ophthalmologists, including general practitioners definitely encounter ocular foreign bodies in their clinics. In most instances, a detailed history about the nature of injury is sufficient to elucidate the presence of a foreign body, however many times they may be missed even by the experts.

The conjunctival fornices (upper and lower) are known to be notorious for harboring foreign bodies for considerably longer period of time<sup>1,2,3</sup>. They may be organic or inorganic, commonly include plant material, metallic fragments, silica/sand particles, and even lost contact lenses. Here we report a case of an infant who was referred to us in eye clinic for

evaluation of lower eyelid swelling that had been there for the past one month.

## CASE PRESENTATION

A 9 month old male infant was referred to the eye department from the paediatric unit where he was admitted for community acquired pneumonia. His mother complained of noticing right lower eyelid swelling of one-month duration. On further history and examination, the mother informed that he got hurt in his right eye by a plastic toy while he was playing with his elder sibling around a month ago. The baby developed lower lid swelling without any redness or sticky discharge (Picture 1). Over the course of previous one month, the swelling did not reduce or increase in size.

He was then taken to an eye specialist, a week after the injury, where the swelling was diagnosed as a hordoeum of the right eye and was prescribed topical antibiotic eye drops along with steroid ointment. Despite topical treatment for two weeks, the swelling did not regress.

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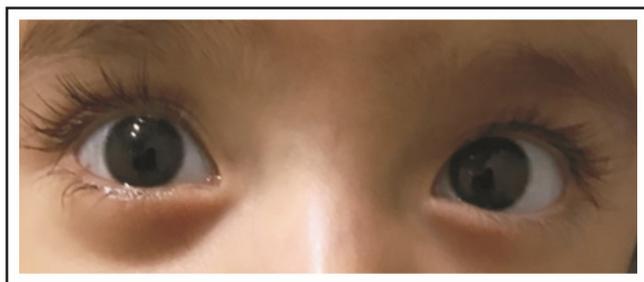
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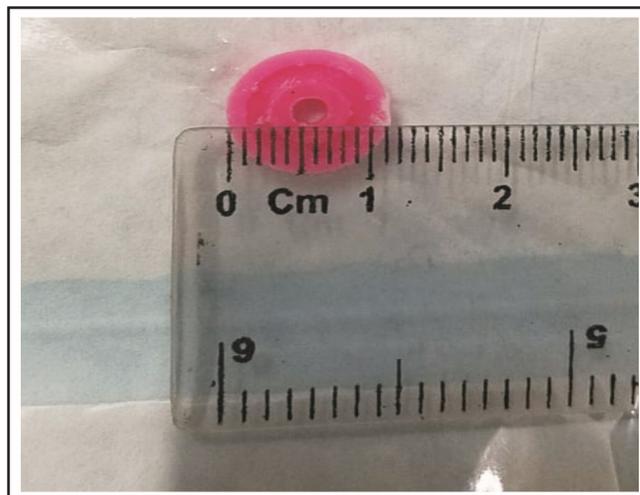
**Picture 1(a):** (Right) Persistent lid swelling.



**Picture 1(b):** (Right) After foreign body removal.

Two weeks after injury, the child developed cough and runny nose along with three episodes of high fever and febrile fits. He was rushed to the emergency department, where he was admitted under the care of pediatric department and was diagnosed as community acquired pneumonia (CAP) based on clinical examination and chest x-ray findings. He was on intravenous ceftriaxone and vancomycin. Fever subsided after 48 hours of starting the treatment. Other symptoms also improved gradually with the exception of lower lid swelling which persisted despite three days of IV antibiotics. Opinion of an ophthalmologist was sought before discharge. At the eye clinic, on general physical examination he was a healthy looking, smiling, active child, slightly irritable in his mother's lap with obvious right eye lower lid swelling. He was a febrile with no lymphadenopathy. Gross visual acuity was intact in both eyes and child was following and fixating normally. Upon palpation the swelling was non-tender and mobile with no associated skin changes. On right lower lid retraction, by the examining doctor, a bright, circular, pink coloured 1.1 cm × 1.1 cm (Picture 2), plastic foreign body popped out and fell on the floor. This foreign body was a wheel of a four-wheeled toy cart with which the baby was playing one month back. Later,

the mother informed us that she had been looking for that wheel since one wheel of the toy cart had been missing from the day the boy developed the swelling.



**Picture 2:** Measurement of the extracted foreign body.

Conjunctiva showed no sign of granulation and/or inflammation. Cornea was lustrous and clear without any epithelial defects. Rest of the anterior segment examination along with funduscopy was unremarkable. Written informed consent was obtained from the patient's parents for purpose of reporting the case.

## DISCUSSION

Ocular foreign bodies are a common finding in patients of all age group presenting in outpatient department with or without history of trauma. In children, however, due to the difficult examination and insufficient history of associated symptoms, conjunctival foreign particles are easily over-looked<sup>4</sup>. Reflex tearing and blinking are the inherent protective ways that usually wash out any foreign body inside the conjunctival fornices<sup>5</sup>. Initially when there is any foreign body in the fornix there is acute inflammatory response causing fibrinous exudate formation in an attempt to dislodge the foreign body, however, if there is a large surface area to the foreign body this mechanism is minimal causing granuloma formation around foreign body<sup>6,7</sup>. Granuloma tissue formation around foreign body as a means of its mechanical stabilization is another protective phenomenon observed in some case reports as well. Hence, once stable, the simultaneous damage to cornea and

conjunctiva is avoided leading to prolonged tolerance and minimal irritation<sup>8</sup>. However, in our case, we did not find any evidence of granuloma formation, except for mild hyperemia.

There are cases in literature in which unusual subconjunctival foreign bodies are reported. Park et al have described a foreign body which was confused with uveal prolapse<sup>9</sup>. Similarly, subconjunctival insect wings are also reported<sup>10</sup>.

With this author communication, the authors wish to highlight the importance of a thorough yet proactive history and clinical examination, which are often neglected due to poor co-operation in children, and lack of awareness among parents too. In our case the foreign body had been there for one month. It was missed at three levels, i.e. by the parents, by the ophthalmologist and by the pediatrician. A missing part of a toy, elucidated on history, should always raise the suspicion among parents and/or care givers for a probable foreign body in children. The concept of a “holistic” approach towards the patient tops the list when providing medical care.

### Ethical Approval

The study was approved by the Institutional review board/Ethical review board.

### Conflict of Interest

Authors declared no conflict of interest.

### Authors’ Designation and Contribution

Javeria Nasir; Registrar: *Concept, data collection, manuscript writing.*

Anum Javed; Resident: *Manuscript writing, final review.*

Mohammad Owais Arshad; Senior Registrar: *Critical analysis, Acquisition of Data, final review.*

Mohammad Hanif Chatni; Head of Department: *Concept, final review.*

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