

## A rare case of unwitnessed nail ingestion in an infant of 3 month

Singh GB, Garg S, Arora R

### ABSTRACT

An extremely rare case of nail impaction in an infant of 3 month is presented, hitherto unreported in the medical literature. The case report discusses the various clinical aspects of this unwitnessed sharp foreign body ingestion. This clinical record also highlights the importance of subtle clinical features in diagnosing these unwitnessed FB ingestion cases and the concept of "Child care" in preventing such cases.

**Key words:** nail ingestion; infant, foreign body impaction

### INTRODUCTION

The peak incidence of foreign body ingestion in children is generally seen in the age-group of 6 month to 3 years, when children out of curiosity develop a tendency to insert objects in body cavities.<sup>1</sup> The ingestion of a sharp foreign body [FB] in children is not seen commonly.<sup>2</sup> Moreover FB ingestion in infants below 6 month of age is a rare occurrence.<sup>1</sup> With this background we present one such case of sharp nail impaction in an infant of 3 month. The case poses a wide array of interesting diagnostic and clinical questions.

### CASE REPORT

A 3 month old female baby was referred to the "Emergency Department" of Kalawati Saran Hospital-a tertiary care paediatric hospital attached to Lady Hardinge Medical College, University of Delhi, New Delhi, India. The baby was not accepting feeds and was having marked drooling of saliva. In general the baby was irritable and crying. These symptoms were noted by the mother of the baby for the past 3 days and thus led the parents to seek immediate consultation with a private medical practitioner. The X-ray revealed a metallic sharp foreign body [curved nail] impacted at the level of cricopharynx [Fig 1 & 2].

**Fig.1.** X-ray chest PA view showing radio-opaque shadow of the curved nail at the level of cricopharynx



**Fig. 2.** X-ray soft tissue lateral neck showing the radio-opaque nail at the level of cricopharynx



After requisite investigations the curved nail was removed by hypopharyngoscopy under general anaesthesia [Fig 3]. The post-operative period was uneventful and the patient was discharged on the 3<sup>rd</sup> post-operative day [Fig 4]. The patient is in regular follow-up with the ENT department with no untoward incident to report.

Fig.3. Removed curved nail



Fig. 4. Normal post-operative X-ray chest PA view



## DISCUSSION

FB ingestion in a 3 month baby is usually an unwitnessed incident hence it's diagnosis becomes more challenging and complicated for want of verbal communication of distress. In cases of delayed diagnosis fatal complications due to their distal migration of ingested sharp FB ensues. There are greater chances of having complications if the sharp FB is retained in the gastrointestinal tract for a longer duration.<sup>3</sup> Intestinal perforation, diaphragmatic perforations and empyema, appendicitis, aortic pseudoaneurysm, esophagoaortic fistula and duodenal fistula all have been reported in medical literature for ingested sharp safety pins.<sup>4</sup> Anecdotal case reports of pericarditis and cardiac tamponade also find mention in medical literature.<sup>5</sup> It is thus prudent to diagnose these cases early, and immediate

removal of the impacted FB is the treatment of choice.

As FB ingestion in an infant is usually unwitnessed it would be important to note that they might not present to the clinician with acute airway, swallowing or choking symptoms. On the contrary such cases may present with subtle clinical signs like excessive drooling and dysphagia with substernal discomfort.<sup>6</sup> Hence, this report emphasizes the importance of including FB ingestion in the differential diagnosis of infants below 6 month of age presenting with the said clinical features.

The detection of a sharp foreign body in the aero digestive tract of a 3 month old child also raises many interesting queries regarding the ingestion. Whether this was done by some elder child as a part of sibling rivalry/accidentally or by some family member as an attempt to eliminate an unwelcome female child, the subject is open to debate. Nevertheless this case highlights the importance of adult/parental supervision in children and the hazard of leaving infants unattended. It thus becomes important for all health personnel to propagate the concept of "Child Care" (i.e. care provided by an individual outside nuclear family or in a setting separate from child's home) as an important factor to prevent aero digestive tract foreign body emergency in the vulnerable paediatric age group.<sup>7</sup>

From our search (Medline/Pubmed) of literature we could find very few cases of FB ingestion in children of 3 month of age, namely an impacted ring in a 3 day old baby, lithium battery in a 17 day old child, a stone in 25 day

child and a rubber pellet in a 2 month old baby.<sup>8,9</sup> Further, only one case of ingestion of nail in an infant finds mention in the English literature.<sup>10</sup> This case presented as a neck abscess at 11 month of age. Interestingly, on intensive interrogation, a history of sibling inserting the said foreign body 8 month back, when baby was 3 month old was found. But as the patient remained asymptomatic after an initial bout of cough, the parents did not seek immediate medical aid. In the above context, it would be prudent to note that 40% ingestions are unwitnessed, and upto 50% of children with confirmed FB ingestion remain asymptomatic.<sup>11</sup> These cases can present with grave complications.

In summary, the case in focus merits mention on account of i) rarity of the occurrence of FB ingestion in age group less than 6 months, especially sharp objects ii) Underlining the

importance of detection of subtle clinical signs like drooling, not accepting feeds and irritability as important sentinel signs for FB ingestion in the said age group iii) propagation of concept of child care, as the most effective management of FB accidents in infants is prevention; for the cases are unwitnessed.

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### AUTHOR NOTE

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**Gautam Bir Singh**, Professor.  
(CORRESPONDING AUTHOR):

Email: gbsnit@yahoo.co.in

**Sunil Garg**, Assistant Professor of ENT, Baba Saheb Ambedkar Medical College & Hospital, New Delhi

**Rubeena Arora**, Senior Resident

Department Of Otorhinolaryngology & Head-Neck Surgery

Lady Hardinge Medical College & Associated Hospital. New Delhi

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