

## CASE REPORT

# Dental Neglect Leading to Foreign Body in Tooth

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## ABSTRACT

An 11 years old boy accompanied by a neighbor reported to the department with pain in the lower front teeth region. History and clinical and radiographic examination revealed dental neglect by the parent and a sewing needle in the root canal of the lower left central incisor. The tooth had to be extracted due to extensive crown fracture. Parents were counseled with an empathetic approach and motivated for further dental treatment needs in the child.

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## INTRODUCTION

Delivering oral healthcare in children is a challenging task. Parental perceptions and attitude play an important role in timely delivery of oral healthcare for children. Delay and neglect of painful oral conditions can lead to stress and discomfort making way for aberrant oral habits.

Dental neglect is defined as the failure by a parent or guardian to seek treatment for visually untreated caries, oral infections and pain; or failure of the parent or guardian to follow through with treatment once informed that the above condition(s) exists.

The following indicators have been suggested as aids in the identification of dental neglect in children:

1. Untreated, rampant caries that is easily detected by a lay person.
2. Untreated pain, infection, bleeding, or trauma affecting the orofacial region.
3. History of a lack of continuity of care in the presence of previously identified dental pathology.

An accurate, complete and sensitively obtained dental history is essential in confirming suspicions of neglect. A common factor in neglect cases is the failure of the parent or guardian to obtain appropriate care for the child following identification of serious dental pathology.<sup>1</sup> Dental neglect can be identified by the presence of obvious oral disrepair coupled with the parent's failure to provide adequate dental attention.

Exploring the oral cavity has always been a favorite pastime and play for children. They place various objects into the mouth and teeth. Many a times the objects accidentally get lodged into the tooth cavity/ pulp spaces, or are ingested or aspirated. This calls for a common pediatric emergency.

Age and behavior of the child, fear and anxiety of the parent and location of the object poses a challenge to the dentist/ medical personnel to retrieve or manage the object.<sup>2</sup>

The present case is of dental neglect in an 11 years old child who had fractured his lower front tooth due to a fall and was not attended by the parent for the pain. Continued pain led the child to insert a needle into the tooth to relieve pain, which got lodged into the root canal and increased the severity of tooth pain.

## CASE REPORT

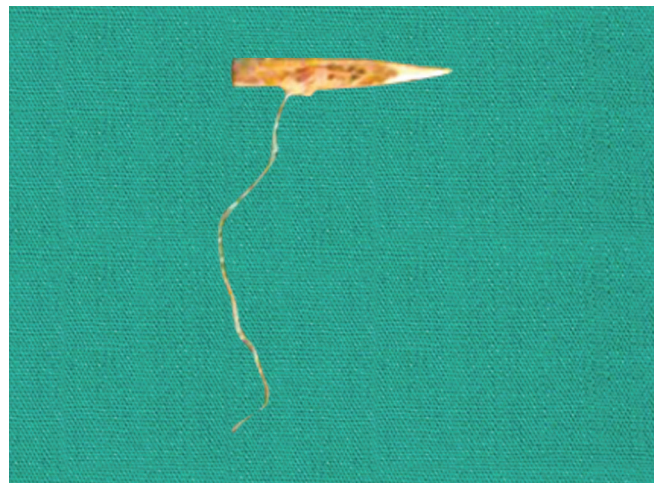
A 11 years old boy reported to department with severe pain in the lower front tooth region. History revealed patient had an episode of trauma and had fractured his lower left permanent central incisor a year and half ago (31). On examination, 31 had Ellis class IV fracture, a nonvital tooth with loss of crown structure (Fig. 1). No treatment was provided to the child by the parent in spite of complaining of pain with the tooth. The parent had ignored child's complain of tooth pain repeatedly and over a period of time the tooth got discolored. Since the tooth was fractured just above the gingiva and the root canal was exposed, food lodgment was present. To remove food particles and get relief from pain the child used to place pins or needle into the root canal. A month before child reported to department, a sewing needle got lodged into the tooth and child did not bring it to the notice of the parent due to fear of punishment and scolding. The child was accompanied by his neighbor. Clinically tooth was nonvital, labially vertical crack (Fig. 1) was visible, tender on percussion and palpation and demonstrated grade II mobility. On examination crowding in maxillary and mandibular anterior region was present. Radiographic



**Fig. 1:** Ellis class IV fracture



**Fig. 2:** Needle in the root canal with coronal radiolucency and widening of PDL space and apical radiolucency



**Fig. 3:** Needle with the thread

examination revealed a radiopaque object extending from coronal to middle third of the root extending to apical third (Fig. 2). Coronally oval radiolucency was seen surrounding the radiopaque object. Due to the poor prognosis of the tooth it was decided to extract the tooth. Before attempting extraction, retrieval of needle was tried using an H-file. The object lodged was a sewing needle with a thread (Fig. 3). Patient was referred to department of orthodontics for correction of the existing malocclusion.

## DISCUSSION

Children playfully place various objects in the mouth and can lead to accidental ingestion and lodgment of foreign objects in teeth or soft tissues. A number of foreign objects have been reported to be lodged in the pulp chamber and root canals of both deciduous and permanent teeth. Metallic paper clip,<sup>3</sup> metal screws,<sup>4</sup> pencil lead,<sup>5</sup> stapler pins,<sup>6</sup> darning needle,<sup>7</sup> beads,<sup>8</sup> plastic chopsticks,<sup>9</sup> tooth picks, indelible ink pencil, ink pen tips, brads, tomato seed, crayons,<sup>10,11</sup> dressmaker pins,<sup>12</sup> two straws,<sup>13</sup> conical metal objects,<sup>14</sup> hat pins,<sup>15</sup> aluminum foil,<sup>16</sup> etc. have been retrieved from root canals. Most common tooth for foreign body lodgment has been the maxillary incisors and maxillary and mandibular molars with chronic large carious lesions. The present case the tooth was mandibular central incisor. Indifference of the parent to the pain and discomfort of the child led him to perform such an activity and the tooth had to be extracted. Parental attitude toward dentistry and dental needs of the child was negative and immediate treatment after fracture of the tooth was denied to the child as it was a broken tooth. Also the parent did not respond to the dental suffering and pain of the child. It was a neighbor who got the child to the department for an examination. Dental neglect by the parent led to foreign body lodged in the tooth and further aggravation of pain. Since it appeared as an isolated case of dental neglect and was not

associated with any type of physical abuse, it was decided to counsel the parent. The parent was contacted and counseling was done using an empathetic approach. The counseling consisted of an informal chat with the parent initially and assessing the attitude of the parent toward the importance of oral health and prevention. The parent was confronted about the child's problem and the reason for the denial of treatment. Low finances, work stress and night time work shift, lack of time to take the child to the dentist were some of the factors that lead the parent to ignore the child's dental condition. The parent was explained about the treatment plan and the entire treatment was done without any charge. During the course of treatment, parent was reinforced regarding the prevention of dental diseases by regular brushing and other oral hygiene practices and preventive dental checkup once in 6 months. Management of dental neglect consists of three stages of intervention according to level of concern.<sup>17</sup>

- i Preventive dental team and management.
- ii Preventive multiagency management.
- iii Child protection referral.

Preventive dental team approach includes in raising concern with the parents, explain what changes are required, offering support, maintaining accurate records and continuing to liaise with the parent and or care taker. Preventive multiagency management includes to liaise with other professionals like health workers, general practitioners, etc. and child protection referral is done when the situation is too complex and deteriorating.

Dental neglect, willful or not may occur in isolation or may be an indicator of wider neglect or abuse of a child.<sup>18</sup> It is important for the care giver to have an empathetic approach and not to condemn or blame the parents. Dental neglect may be due to lack of parental knowledge of the causes or failure to implement preventive practices in child, also, poor socioeconomic conditions, family stress, lack of dental health-

care traditions and parental confidence contribute to parental failure to take their children to dental appointments.<sup>18,19</sup> The welfare of the child is of utmost importance when one comes across a child with dental neglect. The tenets in dealing with isolated cases of dental neglect is to educate and make the parents aware of the importance of oral health and preventive care, counseling and support and referral to counselors for any underlying family stress and other problems. A feature of particular concern is the failure of parents to respond to offers of acceptable and appropriate treatment<sup>20,21</sup> Also when in doubt about the noncompliance of the parent; it is recommended to contact the local child protection center.<sup>22</sup>

## CONCLUSION

Appropriate dental care at regular intervals can lead to pain free and infection free oral cavity. Neglect of emergency dental needs in children can lead to aberrant dental habits of placing foreign body in oral cavity and tooth which in turn can lead to dental emergency and infection and salvaging of the tooth. Parental counseling and empathetic approach should be done.

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