

## CASE REPORT

# Fish in Hypopharynx: A Rare Case Report

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## ABSTRACT

We present a case of a 10 years old child who swallowed a live fish, which resulted in severe upper airway obstruction. The child presented to the casualty with severe airway obstruction with a history of accidental slippage of a live Koi fish into the throat. He was restless, dysphasic, dyspneic, typically placing his hands in front of his neck. On physical examination, there was suprasternal retraction and bilateral decreased breath sound. Direct laryngoscopy was done and fish was removed from hypopharynx as an emergency procedure. We outline our emergency airway management strategies and focus our discussion on the technique used to remove the impacted fish from the upper airway, which was paramount for the successful outcome of this case.

**Keywords:** Direct laryngoscopy, Dysphasic, Dyspneic, Hypopharynx, Koi fish.

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## CASE REPORT

A 10 years old child went fishing with his friends in rural Anandpur, Odisha. He kept the first caught fish in his mouth and tried to catch more fishes. During this time, the caught fish accidentally slipped into his throat. He immediately developed symptoms of upper airway obstruction and respiratory distress. On arrival, the patient was cyanosed, with oxygen saturations of 80%. He was unable to talk and there was fishy smell from oral cavity (Fig. 1). Patient was immediately shifted to emergency occupational therapy (OT). Consent was taken and intravenous (IV) line secured. After a brief masked ventilation for a minute with 100% O<sub>2</sub>, the patient was sedated with injection midazolam 0.03 mg/kg, injection atropine 0.02 mg/kg and injection ketamine 1 mg/kg intravenously. Macintosh laryngoscope was introduced into the mouth and the fish was seen impacted

horizontally in the hypopharynx completely obstructing the view of laryngeal inlet. Initial attempt to remove with a Magill's forceps failed resulting in tear of the mid-part of the body of the fish. Subsequently, the tail of the fish was held and gently disimpacted (Fig. 2). Thorough suction of the pharynx was done to remove any residual debris and pharyngeal secretions. Direct laryngoscopy was done to confirm hemostasis. Hypopharynx found congested and edematous. Endolarynx found normal with normal vocal cord mobility. A start dose of IV hydrocortisone 100 mg was given. The child was fully awake in 30 minutes and was advised injection antibiotics and analgesics. A post-extraction X-ray neck showed no abnormalities. Patient was discharged from the hospital after 24 hours in a satisfactory condition.



Fig. 1: Typical open mouth position of the child



Fig. 2: Whole fish was being removed from hypopharynx using Macintosh laryngoscope and Magill's forceps

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## DISCUSSION

Foreign body in aerodigestive tract is not uncommon and it is a major cause of ear, nose and throat (ENT) upper aerodigestive tract emergencies. However, a live fish in throat is rare and unusual although detailed research do reveal a handful of cases of live fish removed in throat, especially in India, Africa, and some Western countries. The victim of live fish in throat ranged from as young as 6 months old to as old as 65 years old.<sup>1</sup> It is intriguing when the causes of swallowing live fish are explored. The habit of the victim biting the fish in mouth while trying to catch another in the fishing net is the most common cause of live fish ingestion in throat in the literature.<sup>2-4</sup>

If the size of the fish is big, it can cause suffocation, choking and death before reaching the hospital. If the size of fish is small and fins and scales are firmly attached to the oropharynx or hypopharynx causing no immediate effect, but demands hospital management. Dislodgement during difficult removal can cause complete airway obstruction and requires urgent tracheostomy.<sup>5</sup>

The Koi fish (*Anabas testudineus*) is average of 5" in length (Fig. 3). It belongs to the class of osteichthyes (Bony fish). The dorsal and ventral fins have bony rays which are like sharp spikes, the gills are covered with bony opercula with 6 to 8 tooth like processes. Accessory respiratory organs enable the fish to live for long periods outside water. It can travel freely over the ground with a satisfactory type of movement aided by the toothed opercula. This obviously makes a headward movement easy



Fig. 3: Koi fish after removal

while the backward one is extremely difficult. Removal therefore, is not as simple as in other cases.

Aggarwal et al<sup>6</sup> reported successful removal of impacted fish from hypopharynx of the infant of the fisherman's family under general anesthesia Senthilkumaran<sup>5</sup> made an attempt to remove impacted fish by Magill's forceps from diminished sensory perception of the pharynx of an elderly patient without anesthesia. Tang et al in 2013 reported similar case of fish in laryngopharyngopharynx where tracheostomy was needed to secure the airway before removal.<sup>7</sup> They concluded that it is easy to remove fish if it enters with tail first in the mouth and difficult to remove due to presence of fins and the slippery nature of the fish.

In our case, this accidental fish impaction was promptly extracted and the patient did not need any tracheostomy as airway obstruction was promptly relieved.

## CONCLUSION

Live fish in aerodigestive tract is uncommon but timely intervention and a proper approach to such case is deemed life-saving. Though there are advances in anesthetic management and airway instrumentation, sometimes the procedure of removal of the fish is near fatal. Hence, it demands elective procedure with meticulous care by an expert hand in the hospital set up.

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