

# An unexpected cause of respiratory distress in a 5-month-old girl at a pediatric emergency department: a case report

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## Background:

Foreign body (FB) ingestion represents a potential life-threatening condition for children and it may occur with a wide variety of symptoms, some of which might be misleading for the early diagnosis. Occasionally, a FB in the esophagus may present with respiratory symptoms up to respiratory distress. This is more common in young children and when the object remains lodged in the esophagus for a prolonged period.

## Case report:

We report the case of a 5-month-old girl came to our attention for worsening respiratory fatigue for 24 last hours. The child has been presenting cough and sore throat for two previous weeks treated with corticosteroids and antibiotics for 5 days with partial resolution. Her previous history reported clinical well-being. She continued to feed regularly with an adequate growth. On our examination, she became increasingly irritable, asthenic and perioral cyanotic, remaining in an upright position. She was tachycardic (Heart Rate 180/min), with increased oxygen requirement (Saturation 89% in air), increased Respiratory Rate (60/min), severe stridor, and marked chest wall retractions. She had no oral lesions and was not drooling. She had a reduced air entry bilaterally of all lung fields with diffuse wheezing and crackles.

The emergency pediatrician administered oxygen, intravenous corticosteroids and adrenalin by nebulization. After 10 minutes, the child became progressively quieter with improved general clinical conditions, and reduction of respiratory fatigue. Nevertheless, considering the history of cough in the two previous weeks, the worsening trend of the respiratory distress that the child had presented so suddenly, and the finding of crackles at auscultation, the emergency pediatrician remained suspicious and required a chest X-Ray. The exam showed, at the T2 level, the presence of radio-opaque shadow consistent with a star earring (Fig 1) . The mother was questioned about it and she confirmed to have lost one of two earrings one month before and she has never found it. Urgently, the child underwent digestive and airways endoscopy. The procedure showed the earring in the middle third of the esophagus where it resulted to be enveloped by a bulky clot of fibrin that made difficult the removing because of its tight adherence to the mucous layer (Fig 2 A-B). The bronchoscopy did not identify any compression, lesion, perforation of the upper and lower tract of airways. Postoperatively, the child was stable and restarted a gradual feeding without complications. The chest X-Ray performed after 24 hours revealed no consolidation or collapse lung segment. After 3 days, she was discharged in satisfactory general condition. At follow-up in pediatric surgery outpatient department, one month later, she had a barium swallow X-Ray that did not detect any narrowing or abnormalities of the esophagus, including the presence of esophageal diverticulum or tracheoesophageal fistula.

## Conclusion:

Although esophageal FB leading to severe acute respiratory distress is uncommon, it is a possibility that should be considered because it requires urgent surgical intervention to avoid complications. In summary, the diagnosis of esophagus FB can be challenging and careful history taking is important with a low threshold for further investigation, such as chest X-Ray, if clinical suspicion arises.

