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CASE REPORT

Esophageal Foreign Body: A Case Report

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Foreign body ingestion is a commonly seen medical emergency in children. Retropharyngeal abscess and mediastinitis are well-documented complications from foreign body ingestion, which reflects the importance of early diagnosis. The neck radiograph is the most significant radiographic examination performed in a child with a suspected pharyngeal lesion. We report a case where the initial malpositioned lateral view neck radiograph failed to detect a potentially serious esophageal foreign body. A second lateral view neck radiograph discovered a mass of foreign body in the upper esophagus, which was found to be a chicken bone during surgery. The case suggests that a properly positioned neck radiograph is the most important examination in the initial evaluation of a child with suspected foreign body ingestion.

1. Case Report

A 2-year and 8-month-old boy was brought to the hospital emergency after accidentally swallowing a chicken bone. He coughed up one small piece of chicken bone and some bloody sputum. A physical examination revealed mild tachypnea at a respiratory rate of 36 breaths/min. After thorough physical examination, he was sent back to home and the attendant(s) were asked to observe the status of the child.

The next day, he was brought to the outpatient pediatric clinic with complaints of drooling and neck pain. Additionally, he was found to be febrile and without complaints of cough or rhinorrhea. Physical examination showed a mild congestion in throat. An initial anterioposterior and lateral view neck radiographs showed nonspecific findings (Figure 1A and B). A second lateral view neck radiograph was performed and a high density foreign body in the upper esophagus was observed, suspected to be a chicken bone fragment causing a retropharyngeal abscess because of widening of preveterbral space (Figure 1C). The vital data was as follows; temperature 36.6°C, heart rate was 120 beats/min, and respiratory rate 24 breaths/min. Laboratory data revealed an elevated white blood cell count (WBC) of 19,690/mm^3 with differential count of neutrophils 81.6%, lymphocytes 10.6%, monocytes 7.5%, and basophils 0.3%. Hematocrit value was 35.9% and platelet count 256,000/mm^3. C-reactive protein was 7.27 mg/dL. An otolaryngologist was consulted and immediate surgery was performed to remove the foreign body.

He received rigid upper esopharyngoscope examination under general anesthesia and an irregular-shaped chicken bone (2 cm × 2 cm × 0.2 cm) was removed (Figure 2). Incision and drainage for retropharyngeal space was performed through left neck and only mild inflammation of retropharyngeal space and no pus was found during surgery. Penicillin G (1 million units intravenously for every 6 hours) and cefotaxime (250 mg, intravenously for every 6 hours) were prescribed for the elevated WBC count with neutrophil predominance. Laboratory investigation report on the Day 6, reported a normal WBC count of 5300/mm^3 with differential count as neutrophils 36.8%, lymphocytes 48.5%, monocytes 8.7%, eosinophils 4.5%, and basophils 1.5%. C-reactive protein dropped to 0.11 mg/dL. The patient's condition gradually improved and he was discharged on Day 10.

2. Discussion

Foreign body ingestion is the commonly seen medical emergency in children that causes damage to the pharynx and esophagus leading to life-threatening complications, such as retropharyngeal abscess and/or mediastinitis.[1–5] Unlike adults, generally the young

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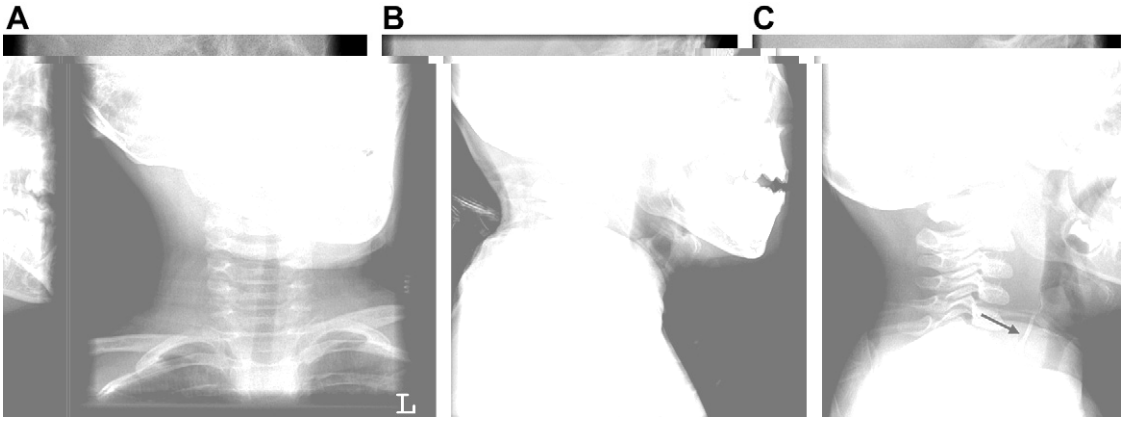

Figure 1 Neck radiographs. (A) Anterioposterior neck radiograph; (B) Improperly positioned lateral view neck radiograph showing nonspecific findings; (C) Second lateral view neck radiograph showing a chicken bone lodged in the pharynx with associated soft tissue swelling. The arrow points to the chicken bone.

Figure 2 An irregular-shaped chicken bone measured 2 cm × 2 cm × 0.2 cm.

patients are unable to describe the location, duration, modality, and concomitance of the present conditions. In cases of suspected foreign body ingestion by the child, a neck radiograph is the foremost important investigation to be performed.

The standard lateral view neck radiograph is obtained with the child in erect position and facing forward with shoulders extended as low as possible to expose the region between the C6 and T1 vertebra, which is a foreign body impact site. Children commonly complain of pain in throat during clinical examination.[6] The clinical history and subjective symptoms strongly suggest of foreign body ingestion in these cases. An error can occur in neck radiograph because of malpositioning of the neck leading to nonspecific findings. This indicates that a careful and detail history taking and a thorough clinical examination are most important aspects in evaluating foreign body ingestion. The plain radiograph (error because of malposition) may lead to incorrect diagnosis.

A high index of suspicion is necessary to evaluate foreign body ingestion as a delayed diagnosis may cause severe complications. One should always keep in mind that all foreign bodies are not radioopaque or can be visualized on regular radiographs. An accurate positioned lateral view neck radiograph with a good imaging quality is a useful modality in diagnosis of foreign body ingestion.

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