

## Esophageal foreign bodies in Yemen

*Mohamed Y. Al-Mahbashi, MSc, PhD,  
Yahia A. Raja'a, MSc, PhD.*

**F**oreign body (FB) impaction in the esophagus is a common and serious health problem. Foreign bodies can lead to many complications such as esophageal perforation, mucosal erosions<sup>1</sup> and fistulizations.<sup>2</sup> Complication from esophageal FB can include death.<sup>3</sup> The maximum incidence of esophageal FB occurs among children under 5 years old.<sup>4</sup> The most common kind of the esophageal FBs in Oman are mutton bones (29.5%), fish bones (20.5%), and coins (20.5%).<sup>5</sup> In Saudi Arabia, these are fish bones (27%), meat bones (23%), and coins (12%).<sup>6</sup> In Jordan, coins (55.5%), bones (13.9%), and metallic objects (6.7%).<sup>7</sup> The general objective of this study is to describe the distribution of the esophageal FB among patients presenting at Al-Thawra Teaching Hospital. Specifically, to classify the kinds of common FB in the esophagus, identify duration, clinical presentation and diagnosis, outcome of the interventions and to correlate the incidence of FBs with age and gender.

A total of 224 patients with FB in the esophagus attended the General Emergency Room and ENT clinic at Al-Thawra Teaching Hospital. Cases were collected prospectively from January 1st 2003, to August 31st 2004. Routine cervical and chest x-ray were obtained in most of the cases. For patients with negative x-ray, further radiographic investigations were performed (barium swallow and CT scan). All patients with a history of esophageal FB were considered emergencies, and interventions were performed in the operating theater. The vast majority of the coins were removed under direct laryngoscopic vision and McGill forceps using maintenance anesthesia with 2-3% halothane and 100% oxygen inhalation in the operating room. For other patients, the FBs were removed by rigid esophagoscopy under general anesthesia. Patients with postoperative complications like esophageal perforation and tracheo-esophageal fistula were referred to the general surgery department. Control x-rays were carried out in some cases. The most common age group was under 5 years old, accounting for 68.6% of the cases and the youngest patients were 3 months old, while the oldest one was 70 years old. There were 120 males (53.6%) and 104 females (46.4%). As for duration, 128 (57.1%) of the patients reached the hospital on the same day of FB swallowing, while 35 (15.6%) do not know about the presence of the FB and presented with another complaints and were discovered accidentally. Some (47 [21.1%]) patients

arrived between the 2nd and 4th day of FB ingestion, and only 14 (6.3%) patients came after more than 5 days. Regarding symptoms, the most common presenting symptoms for patients with esophageal FB were dysphagia 180 (80.4%), followed by odynophagia 132 (58.9%) then hypersalivation 72 (32.1%). The x-ray findings were positive in 184 (82.1%) cases, barium swallow was performed in 2 (0.9%), and CT scan in 2 (0.9%). The vast majority of FBs, 178 (79.5%), were located in the upper esophagus below the cricopharyngeus, 30 (13.4%) in the middle esophagus, and 13 (5.8%) in the lower esophageal sphincter. We found 2 (0.9%) FBs in the stomach and could not identify the exact location in 3 (1.3%) cases. Out of 145 coins removed, 132 (91%) were under direct laryngoscopic vision and McGill forceps, maintenance anesthesia was accomplished with 2-3% halothane and 100% oxygen inhalation. The diameter of the coins were between 2.2-2.5 cm. We used rigid esophagoscopy under general anesthesia in 92 (41%) cases and were successful in 86 (93.5%) cases. Four patients (1.8%) had complications, one (0.4%) patient with esophageal perforation with mediastinitis, one (0.4%) with tracheoesophageal fistula, and 2 (0.9%) with erosions without perforation. None underwent surgical removal and no death. As for the kinds of the FBs;

Table 1 - Kinds of the esophageal foreign body.

Kind	n (%)
Coins	145 (64.7)
Fish bone	16 (7.1)
Meat bolus	11 (4.9)
Button	8 (3.6)
Piece of plastic	7 (3.1)
Piece of metal	6 (2.7)
Pins	6 (2.7)
Safety pins	5 (2.2)
Nail	4 (1.8)
Hair holder	3 (1.3)
Meat bone	3 (1.3)
Hand watch	2 (0.9)
Stone	2 (0.9)
Denture	1 (0.4)
Glass beads	1 (0.4)
Watch battery	1 (0.4)
Piece of wood	1 (0.4)
Apricot seed	1 (0.4)
Orange skin	1 (0.4)
<b>Total</b>	<b>224 (100)</b>

145 (64.7%) were coins, 16 (7.1%) were fish bones, and 11 (4.9%) were meat bolus (**Table 1**). The vast majority 10 (90.9%) of the patients with meat bolus were men aged 55 years and above. The patients with safety pins 5 (2.2%) were women all below 16 years old. The highest incidence of FBs (68.6%) was found among children under 5 years old. This age group is curious and tries to interact with the surroundings. Less than a half of the patients (43%) presented at the same day of FB aspiration. The reason behind this delay could be due to unawareness about the problem, living in remote, mountainous and inaccessible areas, or could be due to seeking traditional healing solutions. In our study, 10 (4.4%) of the patients presented with dyspnea and 6 (2.7%) with cough. Therefore, esophageal FBs patients may present in respiratory distress and may be treated for bronchitis or asthma. Thus, it is important to differentiate dyspnea and cough due to respiratory pathology and esophageal FBs impaction. Asymptomatic patients with esophageal FBs were (7.1%). Some of these FBs have been long standing, these patients may have grown accustomed to the presence of the FBs, and the symptoms are related to the size, kind, and location of the FBs in the esophagus. A high percentage of coins (91%) were removed under direct laryngoscopic vision and McGill forceps without general anesthesia. In our experience, this technique is safe and effective for removing cervical esophageal coins. For other esophageal FBs, we used rigid esophagoscopy. It was successful in 93.5%, and we found that rigid esophagoscopy is safe, quick, easy, and with minimum trauma. We had only 4 (1.8%) complications due to the trial for removing sharp impacted FBs by inadequately experienced hands. Coins (145 [64.7%]) were the most common FBs in the esophagus and this finding is comparable with other studies in Jordan,<sup>7</sup> while higher than the proportions reported from Saudi Arabia<sup>6</sup> and Oman.<sup>5</sup>

In our study 5 (2.2%) FBs were safety pins and swallowed by women. In our country, females practice the wearing of the scarf, and they hold the safety pin between their teeth or lips and, can unintentionally swallow the pin.

Received 26th March 2005. Accepted for publication in final form 10th July 2005.

From the Department of Special Surgery (Al-Mahbashi) and the Department of Community Medicine (Raja'a), Faculty of Medicine and Health Sciences, Sana'a University, Republic of Yemen. Address correspondence and reprint requests to Dr. Yahia A. Raja'a, PO Box 2058, Sana'a, Republic of Yemen. Tel. +967 (7) 1687682. Fax. +967 (7) 1617759. E-mail: yahiarajaa@yahoo.com

## References

1. Mahafza T, Btieha A, Subh M, Khrais T. Esophageal foreign bodies: a Jordanian experience. *Int J Pediatr Otorhinolaryngol* 2002; 64: 225-227.

- Shankar BR, Yachha SK, Sharma BC, Singh B, Mahant TS, Kapoor VK. Retained esophageal foreign bodies in children. *Pediatr Surg Int* 1996; 11: 544-546.
- Gilchrist BF, Valerie EP, Nguyen M, Coren C, Klotz D, Ramenofsky ML. Pearl and Perils in the management of prolonged peculiar, penetrating esophageal foreign bodies in children. *J Pediatr Surg* 1997; 32: 1429-1431.
- Kruk-Zagajewska A, Szymeja Z, Woirowicz J, Wierzbicka M, Piatkowski K. Foreign bodies in the esophagus. *Otolaryngol Pol* 1999; 53: 283-288.
- Murty PSN, Ingle VS, Ramakrishna S, Shah FA, Philip V. Foreign bodies in the upper digestive tract. *SQU J Sci Res: Medical Science* 2002; 3: 117-120.
- Ashoor AA, Al-Momen A. Foreign bodies of the esophagus: A two-year prospective study. *Ann Saudi Med* 2000; 20: 173-175.
- Al-Qudah A, Daradkeh S, Abu-Khalaf M. Esophageal foreign bodies. *Eur J Cardiothorac Surg* 1998; 13: 494-499.

## Mycobacterium tuberculosis and CD4+ T-lymphopenia. A grave combination

*Shahid Aziz, MBBS, MRCP (UK),  
Awadh R. Al-Anazi, MBBS, MD,  
Mogbil A. Al-Hedaihy, MBBS, FRCP (C),  
Hani A. Al-Shobaili, MBBS,  
Abdulkarim I. Al-Aska, FACHARZT.*

**T**uberculosis (TB) is still a common health problem in many parts of the world including Saudi Arabia. According to some of the estimates approximately one third of the world's population is infected with mycobacterium tuberculosis (MTB), with 6-8 million new active cases each year, and accounting for 2-3 million deaths each year. Infection with MTB has protean manifestation, with single or multiple organ system involvement. Hematological abnormalities with the disease have been enlightened by many studies. Correction of these abnormalities with initiation of treatment indicates a good response of the disease.<sup>1</sup> In the present study, we looked at the occurrence of CD4+ T-lymphopenia with active MTB infection.

We included in this study, all patients admitted in the Department of Medicine, under care of Infectious Diseases Unit, at King Khalid University Hospital, Riyadh, Kingdom of Saudi Arabia from July 2002 to June 2003 with culture proven MTB infection, and CD4+ T-cell count <300 x 10<sup>6</sup>/L. We tested the human immunodeficiency virus (HIV) status of all the patients by western blot method and excluded those with a positive result. In addition, the patients on immunosuppressive drugs for any reason were excluded from the study. A tuberculin skin test (TST) was carried out for all the patients