EDITORIAL

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Esophageal Foreign Bodies – How Will We Extract Them in the Future?

Obce ciała w przełyku – jak będziemy je usuwać w przyszłości?

E. Wolfson Medical Center, Holon, and Tel Aviv University Sackler School of Medicine, Tel Aviv, Israel

Abstract

For the extraction of esophageal foreign bodies (FBs), the flexible fiberoptic esophagoscope is often inadequate and may be dangerous. This is particularly so in the presence of sharp FBs and those with protruding parts. Under such circumstances the danger of perforation is increased and the rigid (open-tube) instrument should be used for their extraction. In recent years there is an overwhelming tendency to abandon the rigid esophagoscope in favor of the flexible instrument. As a result, many physicians in training in relevant disciplines are not proficient in the use of the rigid instrument. The author worries about this tendency and calls for the reintroduction of rigid esophagoscopy into clinical use. For this purpose, the inclusion of rigid esophagoscopy in the training curricula of physicians involved in the study and treatment of esophageal disease is urged (**Adv Clin Exp Med 2008, 17, 6, 595–597**).

Key words: esophagus, foreign body, esophagoscopy, esophageal injury.

Streszczenie

Usuwanie ciał obcych z przełyku za pomocą wziernika giętkiego jest często nieodpowiednie. Szczególnie obiekty ostre lub mające części sterczące zwiększają niebezpieczeństwo przedziurawienia przełyku i do usunięcia ich należy używać wziernika sztywnego. W ostatnich latach coraz rzadziej używa się techniki posługującej się przyrządami sztywnymi do wziernikowania przełyku, a coraz częściej stosuje się wziernik giętki (fibroskopowy). W rezultacie lekarze specjalizujący się w dyscyplinach związanych z badaniem przełyku często nie są wyćwiczeni w używaniu wziernika sztywnego. Ta tendencja budzi niepokój u autora, który apeluje o wprowadzenie od nowa wziernikowania sztywnego do użycia klinicznego. W tym celu należy włączyć wziernikowanie przełyku z użyciem sztywnych przyrządów do programu nauczania w dziedzinach związanych z badaniem i leczeniem chorób przełyku (**Adv Clin Exp Med 2008, 17, 6, 595–597**).

Słowa kluczowe: przełyk, ciało obce, wziernikowanie przełyku, uraz przełyku.

The management of foreign bodies (FBs) in the gastrointestinal tract depends on a number of factors, such as anatomic location, shape and size of the FB, and the duration of impaction. FBs retained in the esophagus are by far the most dangerous. Impaction causes edema of the mucosa and the esophageal wall becomes weakened. In particular, sharp-pointed objects tend to become engaged in the mucosa, initiating perforation [1–3]. Thus extraction of an esophageal FB is mandatory as soon as it is diagnosed. The great majority of FBs can be safely extracted during esophagoscopy. However, various factors, including impaction for several days, sharp FBs, and those with protruding parts, increase the danger of perforation when pulled out at esophagoscopy. In some of these cases, minithoracotomy or video-assisted thoracoscopy with clean incision in the esophagus offers distinct advantages over endoscopy by minimizing the risk of trauma to the esophagus [4].

Historically, the initial method of managing esophageal FBs was extraction through the rigid esophagoscope [5]. In 1966, Bigler reported a new technique using a Foley catheter [6] and in the 1970s and 1980s the flexible fiberoptic instrument

became an option. While the Foley catheter has been used occasionally with success for extracting large, smooth, and radio-opaque FBs [7, 8], it is of no use in the majority of instances [9]. At present, flexible and rigid esphagoscopy are the two universally applicable methods. The success rate with the use of the rigid instrument ranges between 94 and 100% of instances [10–12] and the estimated incidence of perforation is 0.34%, with a 0.05% mortality rate [13]. The success rate of flexible esophagoscopy ranges between 76 and 98.5% [14–16] and the morbidity (perforation) rate is between 0% and 0.5% [14, 15, 17, 18].

While these success and morbidity rates are similar, the flexible endoscope is newer and thus more attractive, particularly to those physicians trained in its use but with no training or experience in rigid esophagoscopy [4]. However, the wide lumen of the rigid instrument is of great help in the management of a variety of FBs, such as open safety pins, a denture with protruding hooks, and razor blades, which increase the danger of perforation. Some may have to be drawn, sometimes only partially, into the lumen of the rigid esophagoscope to enable their manipulation and extraction while protecting the esophageal mucosa [11, 19]. The flexible instrument does not and cannot offer this protection. In recent years there have been reports on the flexible esophagoscope adversely affecting the outcome of the procedure and only replacement of the instrument with the rigid esophagoscope resulted in a successful outcome [11, 20]. In some instances it was fortunate that the surgeons involved in the procedure had the experience and knew how to use the instruments [20]. However, this is not always the case. In at least one publication, the patient had to be transferred, while intubated, to another institution for continuation of treatment with the rigid instrument [11].

Will the surgeons of the next generation be capable of doing rigid endoscopy when needed? Worldwide, the training programs for physicians in disciplines involved in extracting FBs from the esophagus (surgery, gastroenterology, laryngology) do not cover rigid endoscopy, and many of the young generation of physicians are not proficient in it. These physicians are the future of our profession. In another 20 years, will there be an expert (before the age of retirement) capable of using the rigid esophagoscope? The author of this Editorial (an old-timer) is a conservative who always uses the rigid esophagoscope and a variety of forceps and believes that these should be the instruments of choice for extracting FBs [9]. This idea is not singular and has been suggested by several authors [11, 21–23]. According to Hollinger, "sharp and penetrating foreign bodies should, in almost all circumstances, be removed using the rigid endoscope. Rigid (open tube) endoscopes are the instruments of choice with rare exceptions" [24].

Unfortunately, the art of rigid endoscopy is rapidly disappearing. Already in our days, many physicians in training are sometimes surprised when told that an instrument such as the rigid esophagoscope could ever have been inserted into the lumen of the esophagus. This is a source of concern and a reason to reintroduce rigid esophagoscopy in parallel with flexible esophagoscopy in the training curricula of those disciplines involved in the investigation and treatment of esophageal disease.

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Address for correspondence:

Dov Weissberg
11 Be'eri Street,
Rehovot, Israel 76352
Tel.: +972 8-946-6194
E-mail: dovw@post.tau.ac.il

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