

## Foreign-body aspiration in an adult

I have read the manuscript "Foreign-body aspiration in an adult" by Qureshi and colleagues,<sup>1</sup> and I congratulate the authors on their successful treatment of such a rare case. Yet, I want to remark on some aspects of the manuscript.

In the discussion section, the study by Baharloo and colleagues<sup>2</sup> is referenced as stating, "In the adult population, such aspiration is most commonly secondary to unconscious accidental ingestion during general anesthesia, sedation, intoxication, seizures or neurologic disorders affecting the oropharynx." However, such information is not included in the above-mentioned manuscript. In this retrospective study,<sup>2</sup> 28 adult patients were examined, and no debilitating factor predisposing to foreign-body aspiration was encountered in any of these patients. In addition, the authors found that the foreign-body aspiration resulting from dental surgery accidents is more common in adults. As a result, they indicated that foreign-body aspiration can occur in the absence of any predisposing factor.

In fact, the factors predisposing to foreign-body aspiration and the type of aspirated object are affected by geographic and cultural differences. Throughout the world, the types and aspiration ratios of aspirated foreign bodies change according to nutrition habits, socioeconomic status, culture and the traditions and customs of the people. Still, serious changes have been observed both in the incidence of predisposing factors and in the nature of foreign bodies aspirated. In the last decade, we have encountered an increasing number of cases of turban pin aspiration. The increase in the number of women in Turkey and the Middle East who wear turbans increased the aspiration frequency of pins used for securing the turbans. During the fixation of the turban, the neck is extended and the pins are held between the lips. Speech or laughter can cause the deep aspiration of the pin into the tracheobronchial system. A comprehensive study carried out in Turkey showed that the most common aspirated foreign body is the turban pin, which is in keeping with our experiences.<sup>3</sup>

Many comprehensive studies have determined the characteristics and ratios of

predisposing factors for foreign-body aspiration in adults. Limper and colleagues<sup>4</sup> determined that impairment of protective airway mechanisms occurred in 25 of 60 cases of adults who aspired foreign objects. Lan<sup>5</sup> studied 47 adult patients with nonasphyxiating tracheobronchial foreign bodies and divided them into 4 groups (acute, chronic, uncertain and broncholith) according to the duration of foreign-body aspiration. Of the 29 patients in the chronic group, mechanical ventilation was started in 1 patient who was comatose due to sepsis, and another patient had a seizure after aspirating a foreign object. In the other cases, predisposing factors such as neuromuscular or swallowing disorders, or abuse of alcohol and/or sedatives were not determined. Lai and colleagues<sup>6</sup> determined predisposing factors in only 6 patients in their series of 40 cases. In a study by Debeljak and colleagues<sup>7</sup> in Slovenia, 62 adults were examined, and it was found that the most common foreign object aspired was pieces of bone. There were no neurologic disorders or loss of consciousness in any of these patients. In the study by Zubairi and colleagues,<sup>8</sup> 4 adult cases of foreign-body aspiration were presented and no risk factors were determined. Finally, as the results of these studies are taken into account, it seems that many cases of foreign-body aspiration may occur without predisposing factors.

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### References

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### (Dr. Behzadi replies)

It is with pleasure that we see our case report<sup>1</sup> in the *Canadian Journal of Surgery (CJS)* has generated considerable interest. We thank Dr. Karapolat for an informative letter.

The diagnosis of foreign-body aspiration (FBA) in adults, which includes the geriatric population, is perhaps underreported. To truly determine the incidence of FBA in adults and identify the predisposing factors, one needs to include the examination of the records of patients who did not survive the occurrence. Aspiration pneumonia is a common and often terminal event in debilitated patients and is encountered frequently at autopsy.<sup>2</sup> Moreover, patients in whom complications of overlooked FBA develop should also be included in any analysis. A study of 59 cases of foreign-body aspiration diagnosed on biopsy or resection specimens<sup>3</sup> showed the presence of predisposing factors in most patients. Therefore, any conclusion on the incidence of predisposing factors based on the outcomes of alert and oriented patients who seek medical care after a suspected FBA such as a turban pin aspiration should be viewed with caution.

In our discussion, the reference to Baharloo and colleagues<sup>4</sup> should have mentioned the lack of identifiable predisposing factors in some cohorts while emphasizing the known risk factors for FBA such as impairment of protective airway mechanisms.<sup>5</sup>

The objective of our case report for the general readership of *CJS* was mainly to demonstrate that the aspiration of a large object in an adult could potentially be tolerated for an extended period of time, and that the management of such a problem can be quite challenging.