Uncommon Foreign Bodies in Bronchus

S. N. Jain, M.B., F.C.C.P.
Kakinada, India

The literature is full of reports of various types of foreign bodies that can enter the tracheobronchial tree. I intend to describe here a few unusual types of foreign bodies we encounter here.

One type of foreign body is due to the abundance of custard apples that abound in these regions from September to December. The botanical name for this fruit is Annona Squamosa and it belongs to the family of Anonaceae. The fruit, on an average, consists of about 25-30 seeds, one of which is shown in Fig. 1. When eating this fruit, particularly when they are in a hurry, children take mouthfuls of the seeds covered with the thin sweet layer of custard like flesh in their mouth and go on separating custard from individual seed and spitting separated seeds away. It is at this stage that if any one unaware makes them laugh or takes them by surprise, they may take a breath aspirating one of the seeds. The broad end of the seed, due to its heavy weight, goes first and the narrow tapering end remains proximal, making it more difficult to grasp by forceps.

These fruits do not last very long, so it is difficult to export them to distant places and they have to be consumed locally. This fact perhaps can be impressed more when I mention that while locally a basket of about 50 fruits may be available for half a rupee, in Delhi one fruit may cost this much. These fruits grow wild in the plateau of the Telangana region of the state of Andhra Pradesh. Hyderabad is the capital and while working in that city I recount approximately a dozen cases of this foreign body entering the trachea every season. These must be in addition to an equal number, or more, patients who do not reach the hospital in time. Being so cheap, the fruit is consumed in quantity by everyone, including the poor and is a potential danger to children.

Most of the patients are children below the age of five years. The cough reflex is not well developed at this stage and this may be one of the reasons.

During this season, we have the seed of another fruit known as sapota or chikoo which also has a similar seed (Fig. 2). Botanically, this belongs to the family of Leguminaceae, sub-family papilionate and is named as Dolichos Lablab. The main difference is that every fruit contains only two-four seeds covered with thick flesh.

Another local habit is eating corn after roasting on the fire. Children are in the habit of taking a bite of many pieces. This season, we had a child with one of the maize seeds entering the bronchus. The circumstances are almost similar to custard apple seed; the only difference is that the custard apple seed has a hard shell so it does not disintegrate or swell so easily and local reaction is therefore mild.

Jackson1 has stated that 66 per cent of foreign body accidents happen to patients

Figure 1: Whole custard apple with its seed.

Figure 2: Sapota fruit with its seed.
under five years of age. All our patients belong to this age group and hasty, careless eating has led to the entrance of foreign bodies.

History suggestive of foreign body is usually there, unless no older person is present at the time of accident.

It is unwise to delay bronchoscopy in the hope that a foreign body will be coughed out. One of our cases was reported one week after the accident, and the foreign body was still present.

Bronchoscope is usually passed under general anesthesia. The removal of this kind of foreign body requires some skill, as the tapering end of the seed is proximal and the broad end is distal. We have found peanut forceps very useful. Extreme gentleness of manipulation and lightness of touch must be exercised. The inspiratory dilatation of the bronchus affords the best opportunity to catch the object. We usually had to remove the bronchoscope along with the forceps holding the foreign body. One has to be especially careful when the larynx is reached. In some cases, tracheotomy is necessary. Figure 3 indicates a typical pre-operative chest x-ray film which has become clear after bronchoscopy and removal of custard apple seed in a two-year-old girl.

Reference


SEROLOGIC DIAGNOSIS OF SCHISTOSOMA MANSONI INFECTION

The data here presented demonstrate that the conglutinative complement absorption test may be regarded as a reliable procedure for the diagnosis of S. mansoni infection. Both the sensitivity and the specificity of the CCA test are comparable with those afforded by the hemolytic complement-fixation test. The groups of patients with active bilharziasis included children and adults of both sexes; no difference was found in the sensitivity of the CCA test in relation to the patients' age or sex.

In infected mice, specific antibody detected by the CCA test and immunoglobulins appear around the 30th day after exposure, when the schistosomes migrating from the liver to the mesenteric veins, are sexually mature and are able to lay eggs. However, it is not known whether the appearance of specific antibodies and immunoglobulins can be directly related to the presence of schistosome eggs.