

CASE REPORT

Accidental Condom Inhalation

C.L. Arya¹, Rajnish Gupta and V.K. Arora

Jaswant Rai Speciality Hospital¹, Meerut, and L.R.S. Institute of TB and Respiratory Diseases, Sri Aurobindo Marg, New Delhi, India

ABSTRACT

A 27-year-old lady presented with persistent cough, sputum and fever for the preceding six months. In spite of trials with antibiotics and anti-tuberculosis treatment for the preceding four months, her symptoms did not improve. A subsequent chest radiograph showed non-homogeneous collapse-consolidation of right upper lobe. Videobronchoscopy revealed an inverted bag like structure in right upper lobe bronchus and rigid bronchoscopic removal with biopsy forceps confirmed the presence of a condom. Detailed retrospective history also confirmed accidental inhalation of the condom during fellatio.

Key words : Foreign body, Inhalation, Condom, Rigid bronchoscopy.

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INTRODUCTION

Foreign body inhalation or aspiration constitutes an area that is of considerable interest to the pulmonologists, thoracic surgeons, otorhinolaryngologists, paediatricians and paediatric surgeons, as both the children and the adults have been known to aspirate objects¹⁻⁷. Children commonly do so, owing to their inquisitive nature of putting objects in their mouths¹⁻³. A study from Libya identified foreign bodies in the tracheo-bronchial tree in 76 out of a total of 102 children³. An Irish report has described the foreign body retrieval from bronchus in two women in their 30's⁷. The inhaled items have comprised of the edibles (like nuts, beans, seeds, chicken bone, etc) in about 75% of cases^{1,2,6} and the non-edibles (such as pins, needles, screws, plastic objects, etc) in

others^{1,4}. The scarf pin inhalation has been reported as a cultural hazard in Arab women⁴. Inhaled objects have commonly got lodged in right main bronchus in almost half of reported cases owing to the straighter and wider course allowing a greater volume of air during inspiration^{1,3}. A history of inhalation leading to the symptoms (like choking, cough, stridor and dyspnoea) and signs (like cyanosis, unilateral wheeze and diminished air entry) is not always demonstrable¹. Different views of a chest radiograph could show the presence, nature and location of an inhaled foreign body (especially the metallic object). Air-trapping, atelectasis, recurrent pneumonia, bronchiectasis, granulomatous process and pneumothorax are known complications⁵. Absence of the classical history and/or physical or radiographic findings may lead to a delayed diagnosis⁵. In an

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Correspondence and reprints request : Dr V.K. Arora, Director, L.R.S. Institute of Tuberculosis and Respiratory Diseases, Sri Aurobindo Marg, New Delhi – 110 030, India; Tele. : 91-011-26963335 (*Off.*), 91-011-26512368 (*Resi.*), Telefax : 91-011-6517834, 91-011-6568227; E-mail : <lrsinet@bol.net.in>.

Irish report, foreign bodies have been removed from the bronchus in two women after an interval of 25 years or more⁷. A retrieval of foreign body is dependent upon its physical nature, site of lung lodgement, expertise of bronchoscopist and the interventional facilities available at a health centre. Rigid bronchoscopy has been traditionally favoured over the flexible fibreoptic bronchoscopy and laser has been selectively employed in retrieval of inhaled foreign bodies, but surgery has remained the last resort in management of these cases^{1,6}.

CASE REPORT

A 27-year-old female school-teacher was seen for the complaints of persistent cough, sputum and fever for past six months. There were no other associated symptoms. The general physical and systemic examination was essentially normal. Review of the baseline record did not reveal any gross abnormality in respect of the haematological, biochemical or the radiological profile. Sputum examination for pyogenic organisms and *Mycobacterium tuberculosis* was also negative. The chest radiographs carried out subsequently showed development of a non-homogeneous right upper lobe lesion, not resolving either with antibiotics or a four-month trial of an empirical anti-tuberculosis treatment (ATT) instituted by various practitioners. No symptomatic relief was obtained with either therapy. During a fresh work-up of the case, we did not find any significant abnormality in laboratory parameters, but the chest radiograph demonstrated a right upper lobe collapse-consolidation of lung (Figure 1). The opacity led us to promptly carry out a video-bronchoscopy, which gave impression of a white membranous object protruding from the collapsed right upper lobe bronchus. On probing further, it was noticed to be an inverted bag-like structure 'sitting' in the bronchus (Figure 2 top) and having a flap-like action. A rigid bronchoscopy was then performed and the object was easily removed with biopsy forceps, though, it tore into pieces during procedure (Figure 2 bottom). The pieces were identified as being those of a 'condom'. A



Figure 1. Chest radiograph (postero-anterior view) showing right upper lobe collapse-consolidation of the lung.

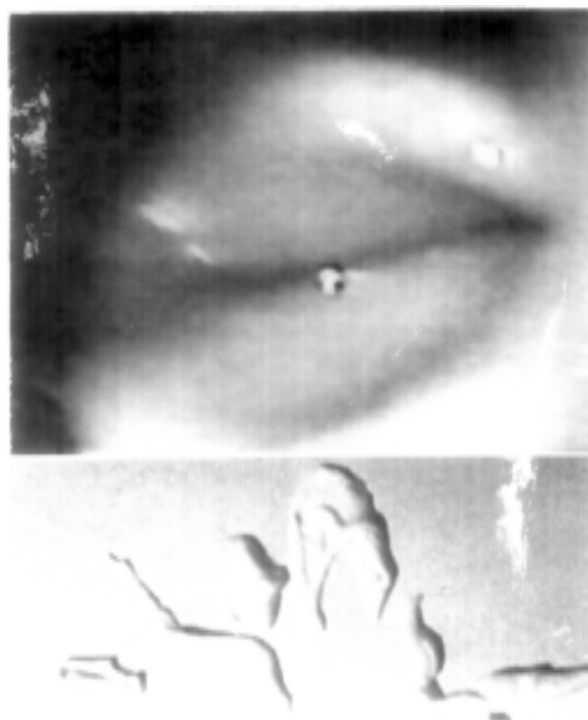


Figure 2. (Top) A videobronchoscopic view showing 'bag-like' structure in the right upper lobe bronchus; (Bottom) pieces of condom retrieved at rigid bronchoscopy.

bronchial lavage was also carried out.

Retrospectively, both the husband and wife accepted to having undergone a fellatio. They could recollect that the condom had loosened during the act, and at that time, the lady had also experienced an episode of sneezing or coughing. A dramatic clinical recovery took place following the bronchoscopic intervention. A progressive radiologic improvement also resulted and the two-week post-bronchoscopy chest radiograph demonstrated a near-complete resolution of the right upper lobe opacity (Figure 3). The lady was advised to come for a monthly follow-up of the residual radiologic opacity.



Figure 3. Chest radiograph (PA view) performed two weeks after bronchoscopy showing a resolving right upper lobe opacity.

DISCUSSION

Our case report describes an accidental inhalation of condom by a young lady while performing the fellatio. The patient suffered from persistent cough, sputum and fever for six months and did not get any respite with either antibiotics or the ATT instituted by various practitioners. Diagnosis in the case got delayed

owing to various possible reasons. One of these appears to concern the inhaled condom itself due to its soft, elastic and rubbery consistency that is unlikely to cause a direct lung injury. But, an intra-luminal airway obstruction of the right upper lobe segments produced by it, could have resulted in the retention of secretions and the infection of corresponding lung segments, which may have become radiologically visible as a non-homogeneous right upper lobe collapse-consolidation. Despite mechanical obstruction, the flap-like action of condom (as noticeable on video-bronchoscopy) probably continued to clear secretions from right upper lobe, contributing to the delay in radiologic presentation of case. Second reason for diagnostic delay apparently concerns the couple, who did not disclose the event to treating physicians either intentionally (owing to discrete nature of act), or due to real failure to correlate the symptoms with event. Reasonably so, treating physicians were also responsible for the prolonged suffering of case not only due to their inability to suspect a foreign body as the cause of a non-resolving pneumonia, but also due to their insistence to treat with ATT inspite of the persistence of clinical symptoms and non-resolution of radiological lesion. Perhaps, views of physicians were guided by the age of patient (that was less suited for a suspicion of an inhaled foreign body), and also the fact, that a disease like tuberculosis was so highly prevalent in this part of world that a preference for the institution of ATT was quite natural. All reasons described above resulted in a delayed case diagnosis.

Even following the condom retrieval from bronchus and its demonstration to couple, a history of fellatio was obtained from them after prolonged efforts. Both were understandably hesitant in disclosing it owing to the nature of affair concerned (involving one's privacy), the unusual nature of coitus performed (via an oral route) and the inhalation of a discrete object (like condom). The possibility of seminal aspiration also taking place simultaneously may not be ruled out. It may also be disputed whether the aspiration could have initially contributed to development of a chemical

pneumonitis-like picture of the affected lung segments or not. Surely, the bronchoscopic intervention brought about a dramatic clinical improvement, although, radiologic clearance took place slowly over the period of time. One could presume that a complete resolution may not simply take place either due to the retained bit (arising as a result of condom-tear during forceps retrieval), or the impacted mucoid secretion, or even the over-growth of mucosal membrane. A repeat bronchoscopy may be necessitated for the residual radiologic opacity, for which, the lady was advised a monthly follow-up.

The case has certain atypical features, of which, the foremost relates to the type of inhaled object, *i.e.*, a condom, which has not been reported in the literature to the best of our knowledge. The second observation about its lodgement in right upper lobe bronchus was also quite different from the usually involved apical segment of lower lobe bronchus (which is the most dependent region during aspiration in a supine position). Assumably, this upper lobe existence might have been effected by the patient's position at the time of coitus and could have been partly contributed by the anatomical variation of bronchial angulation. The third atypical feature was adult-age of patient, that by any means, would be least expected to be associated with any foreign body inhalation.

Quite interestingly, one would wonder that an incidence of this nature took place on the Indian sub-continent, which enjoys a traditional conservative culture. People tend to have religious attitudes and sex is largely considered to be a subject limited to a person's private life. Apprehensions may, however, exist in the

young minds towards opposite sex. Perhaps, the young lady in our case was also quite apprehensive about fellatio, a fact, that could have played a part in the condom inhalation. It is, much desirable that sex taboos prevalent on the sub-continent are curbed and greater sexual awareness created in the people's minds.

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