

# Scarf Pin: An Intrabronchial Foreign Body Who Is Not Unusual in Adults in Muslim Countries , Rarely Found in Children Femal Accedentaly

EL OUADDANE DOAAE<sup>1</sup>, HAMRAOUI SALIMA<sup>2</sup>,  
MAROUF RACHID<sup>3</sup>

<sup>1</sup>Doctor, Mohammed VI university Hospital Oujda  
<sup>2,3</sup>Professor, Mohammed VI university Hospital Oujda

## Abstract

Intrabronchial foreign body inhalation is a serious and common situation in children . It is less common in adults. The nature of the FB depends on regions, eating habits, and clothes too. The scarf pin is a particularly common FB in Islamic countries, among young and veiled women , it interest adults women. Rare children cases are cited in the literature . The chest radiography is generally sufficient for diagnosis and bronchoscopy remains the best way to extract the FB . This the extraction must be carried out quickly and by experienced praticients to avoid the occurrence of complications . we present a case of femal child who present a scarf pin as an intrabronchial foreign body

## Introduction

Intrabronchial foreign body (FB) inhalation is a serious and common situation in children (1,2) . It is less common in adults. The nature of the FB depends on regions, eating habits, and clothes too. The scarf pin is a particularly common FB in Islamic countries, among young and veiled women , it interest adults women . ( 3 ) Rare children cases are cited in the literature . The chest radiograph is generally sufficient for diagnosis [4] and bronchoscopy remains the best way to extract the FB [5]. This the extraction must be carried out quickly and by experienced praticients to avoid the occurrence of complications [6].

## Case report :

It's about a children with 14-years-old of age, she is female . She have no risk factor for inhalation of FB that was found, such as swallowing disorders, neuromuscular pathology or alcoholism.

The Inhalation was accidental , while the young children had barely initiate to wear the veil. She held between their lips two or three pins to pin them on the scarf and inhaled one pin of them accidentally, while laughing and talking. Traying to imitate his mother .

The pin is a straight metal body of 2 to 3 cm with pointed tip and distal part covered with a colored plastic bead.

The average time between inhaling the pin and admission to our departement was three days.

The clinical signs were dominated by coughing, of suffocation and dyspnea, FB aspiration , with no hemoptysis. Clinical examination was normal .

Chest X-ray showed the radiopaque FB, in the form of a linear opacity in the left, with no associated parenchymal or pleural lesion.. A prescription of amoxicillin-acid clavulanic acid antibiotics (3 g/day) and short-term oral corticosteroid therapy duration based on prednisolone (1 mg/kg per day) was proposed .

An inflammatory state of the mucosa was noted. The pin was held by its pointed end which was directed upwards. The extraction by rigid bronchoscopy was proposed as first intention. And three attempts were necessary.

### **Discussion :**

Accidental inhalation of an FB is common in the childhood. It can be a serious problem, putting the vital and functional prognosis of the child in danger . (1,2)

It is rare in adults, often misunderstood and confusing with tumor pathology (7). There are two frequency peaks occurrence of CE inhalation, one at the age of three or four years in children and the other in patients aged more than 50 years old due to false roads, generally favored by bad teeth, reduced reflex cough and swallowing (8).

The FB generally found in childrens are foods, such as as peanuts, watermelon seeds, sunflower seeds. Sometimes it can be coins or objects metallic [1,2] . The Pin of the scarf is rarely found in the childhood . Muslim adults women cover their head, body or face following a written directive in Islamic scripture . Nowadays many sources gives step by step instructions for wrapping , twisting an pinning head scarves to create different forms . It's about « starter Kits » that women buy such as the number and color of pins , brooches and scarves of wearing the veil in a flattering way . (9)

Consumers cannot behave or decide like individuals in outside of a social context, their actions are embedded in a system of social relations continuous and concrete (Granovetter, 1985) The adolescent as an autonomous consumer is part of perfectly in this process. Moschis (1985) In learning process of the role of consumer, the adolescent is subject to various social influences. This learning then passes through mechanisms of reinforcement, imitation or interaction with others (10,11) . It is the case in our situation with the problem of imitation.

To fix the veil on their heads, the women held two or three pins between their lips, while waiting to adjust the scarf. This maneuver predisposed patients to easily and accidentally inhale the pin, especially when talking, laughing or breathed deeply.

The clinical signs after inhalation of an FB are not specific. It could be acute respiratory distress or recurrent bronchopneumopathies. Most of the time, the penetration syndrome goes unnoticed and is not recognized later due to complications. The clinical symptomatology, in our patient, was dominated by the penetration syndrome with bouts of coughing, choking and dyspnea. These signs faded after a few minutes ; this being due to the non-asphyxiating nature of this type of FB due to its shape [12—13].

The most frequent complications of FB , are obstructive emphysema, most often associated with recurrent pneumonitis in the same territory, dyspneic bronchopneumonia, lung abscess, pleurisy or pneumothorax (14). Pneumomediastinum is exceptional (15). Those complications appear when the average between inhalation of the FB and its extraction more than seven days (16) .

The preferred placement of intrabronchial FB is the tree right bronchus due to the straightness of the right main bronchus. In the series by Caidi et al (8). Witch was not the fact in our case.

Concerning the forceps used in the extraction of the pin, Al-Ali et al. [17] found no difference between the biopsy forceps and the "crocodile" forceps. all inhaled pins were extracted using biopsy forceps In

the study from Hebbazi et al [10] due to the unavailability of the “crocodile” forceps our study as well, whereas N. Zaghba and al series, they were all extracted using forceps “rat teeth”. (18)

Surgery is rarely indicated and concerns cases failure of endoscopy, as well as unrecognized FB with irreversible tracheobronchial destruction. The thoracotomy rate reported in the literature varies between 1.6 and 18% (3,12,19,20)

### Conclusion

Scarf pin inhalation is one more accident more frequent in the female adult population in our Moroccan context (11,21). It is rarely found in children that was due in our case to imitation.

Endoscopic extraction of FB should as quick as possible.

The best treatment remains preventive by avoiding wearing in the mouth of objects likely to be inhaled during with brutal emotion and especially in front of children and adolescents due to their process of learning by imitation.

This topic requires media promotion in order to inform the public about the complications related to this accident.

### Bibliography

1. Viot A, Babin E, Bequignon A, Moreau S, Vadillo M, Valdazo A. Corps étrangers intrabronchiques de l'enfant. *Ann Otolaryngol Chir Cervicofac* 2002;119:174—80.
2. Labbé A. Corps étrangers des voies respiratoires. *Encyclopédie MédicoChirurgicale - Pédiatrie (Paris)* 2002;3:4-065-A-10
3. Kaptanoglu M, Dogan K, Onen A, Kunt N. Turban pin aspiration, a potential risk for young Islamic girls. *Int J Pediatr Otorhinolaryngol* 1999;84:131—5.
4. Silva AB, Muntz HR, Clary R. Utility of conventional radiography in the diagnosis and management of pediatric airway foreign bodies. *Ann Otol Rhinol Laryngol* 1998;107:834—8.
5. Uskul TB, Turker H, Arslan S, Selvi A, Kant A. Use of fiberoptic bronchoscopy in endobronchial foreign body removal in adults. *Turk Resp J* 2007;8:39—43.
6. Al-Sarraf N, Jamal-Eddine H, Khaja F, Ayed AK. Headscarf pin tracheobronchial aspiration: a distinct clinical entity. *Interact Cardiovasc Thorac Surg* 2009;9:187—90.
7. Mignon F, Mesurole B, Chambellan A, Duboucher C, DangeardChikhani S, Leclerc P, et al. Granulome à corps étranger mimant une tumeur bronchique. *J Radiol* 1997;78:1181—4.
8. Caidi M, Kabiri H, Lazrek I, El Maslout A, Ben Osman A. Chirurgie des corps étrangers intrabronchiques. *Ann Chir* 2002;127:456—60.
9. Elisabeth m. Bucar Cultivating Virtues through Sartorial Practices: The Case of the Islamic Veil in Indonesia. *EM Bucar - perpus.univpancasila.ac.id*
10. Khafid BADAoui Le rôle du style vestimentaire dans le comportement du consommateur adolescent Actes du 25e Congrès International de l'AFM – Londres, 14 et 15 mai 2009
11. Asch S. E. (1951), Effects of group pressure upon the modification and distortion of judgment. In H. Guetzkow (Ed.) *Groups, leadership and men*. Pittsburgh, PA: Carnegie Press. Auteur 1, Auteur 2 et Auteur 3 (2007)
12. Hebbazi A, Afif H, El Khattabi W, Aïchane A, Bouayad Z. L'épingle à foulard un nouveau corps étranger intrabronchique. *Rev Mal Respir* 2010;27:724—8.

13. Hasdiraz L, Bicer C, Bilgin M, Oguzkaya F. Turban pin aspiration: non-asphyxiating tracheobronchial foreign body in young islamic women. *Thorac Cardiovasc Surg* 2006;54: 273—5.
14. Bourlière-Najean B, Gorincour G, Dubus JC, et al. Aspects radiologiques pulmonaires en rapport avec l'inhalation de solides ou de liquides chez l'enfant. *Radiodiagnostic III Cœurpoumon Encyclopédie Médico Chirurgicale (Paris)* 2007;1, 132-389-A-10.
15. Mehta AK, Sarin D. Case report. Subcutaneous emphysema: an unusual presentation of foreign body bronchus. *MJAFI* 2007;63:71—2.
16. Wroblewski I, Pin I. Que deviennent les enfants ayant présenté un corps étranger bronchique ? *Ann Fr Anesth Reanim* 2003;22:668—70.
17. Al Ali Mak Khassawneh B, Alzoubi F. Utility of fiber optic bronchoscopy for retrieval of aspirated headscar of pins. *Respiration* 2007;74:309—13.
18. N. Zagha \* , H. Benjelloun , A. Bakhatar , N. Yassine , A. Bahlaoui Service des maladies respiratoires, CHU Ibn Rochd, Casablanca, Maroc Épinglé à foulard : un corps étranger intrabronchique qui n'est plus inhabituel *Revue de Pneumologie Clinique* Volume 69, Issue 2, April 2013, Pages 65-69
19. Murthy PSN, Ingle VS, Edicula G, Ramakrishma S, Shah FA. Sharp foreign bodies in the tracheobronchial tree. *Am J Otorhinolaryngol* 2001;22:154—6.
20. Gokirmak M, Hasanoglu HC, Hoksar N, Yildirim Z. Retrieving aspirated pins by flexible bronchoscopy. *J Bronchol* 2002;9:10—4.
21. Ludemann JP, Riding KH. Choking on pins, needles and blowdart: aspiration of sharp, metallic foreign bodies secondary to careless behaviour in seven adolescents. *Int J Pediatr Otorhinolaryngol* 2007;7:307—10.



