

The Removal of Bilaterally Placed Foreign Bodies in the Tracheobronchial Tree with Flexible Fiberoptic Bronchoscope

FİLEKSİBL FİBEROPTİK BRONKOSKOPI İLE TRAKEABRONŞLARDAKİ İKİ TARAFLI YERLEŞMİŞ YABANCI CİSİMLERİN ÇIKARTILMASI

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SUMMARY

The incidence of foreign body aspiration is getting more common among women in Islamic countries because Islamic faith requires them to cover their hair with a head scarf which needs to be attached with a pin. This pin has a coloured plastic little ball on the top and it is longer than the normal pins, in recent years, aspiration of this pin has been very frequent among young women causing severe medical problems.

A young woman applied to our clinic with the same problem. On the postero-anterior chest roentgenogram of this patients, bilaterally placed two metallic foreign bodies were seen in the tracheobronchial tree. Contrary to the common belief, flexible fiberoptic bronchoscope (FFB) was used for the removal of these foreign bodies.

This case report shows that bilateral and peripheral foreign bodies in the tracheobronchial tree can be removed by using flexible fiberoptic bronchoscope under the local anesthesia without any complications.

Key Words: Flexible fiberoptic bronchoscope, Foreign bodies

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Bronchial foreign bodies should be treated immediately especially in children. Otherwise, they may cause atelectasia, pneumonia, bronchostasia or lung abscess (1,2). There is still a controversy regarding the technique of removing the bronchial foreign bodies. The type of the bronchoscope, its accessories and the procedure change in the opinions of the different bron-

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ÖZET

İslam ülkelerindeki kadınlar arasında yabancı cisim aspirasyonu sıklığı gittikçe artmaktadır. Çünkü İslam dini kadınların başlarının örtmelerini gerektirmekte ve kadınlarda başlarını örtmek için toplu iğneler ile tutturulabilen bir tür baş örtüsü kullanılmaktadır. Bu iğneler normalden daha uzun ve başlarında plastik küçük bir top olan iğnelerdir. Son yıllarda bu iğnelerin aspirasyonuna bağlı olarak ciddi tıbbi problemler doğmaktadır.

Kliniğimize aynı problemle başvuran genç bir kadın hastaya çekilen arka-ön akciğer grafisinde bronş ağacı içerisinde iki taraflı olarak yerleşmiş iki adet metalik yabancı cisim görüldü. Ve yaygın görüşün aksine bu vaka rijit bronkoskop yerine fleksibl bronkoskop (FFB) kullanıldı ve başarı ile yabancı cisimler çıkarıldı.

Bu olgu sunumu bronş ağacı içerisinde iki taraflı ve periferik olarak yerleşmiş olan yabancı cisimlerin lokal anestezi altında ve herhangi bir komplikasyon olmaksızın FFB ile çıkarılabileceğini göstermektedir.

Anahtar Kelimeler: Fileksibl fiberoptik bronkoskopi, Yabancı cisim

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chologists (3). While it is accepted by the authors that rigid bronchoscope is the first choice to remove the children's foreign bodies (1,4), FFB is considered to be a practical and safe procedure for removing peripherally located foreign bodies in adults (5).

We report a case here in which scarf pins have been successfully removed from the lungs of an adult with the FFB.

CASE REPORT

A 25 year old woman applied to our chest disease department of Gaziantep University with a history of aspirated scarf pins while attaching her head

scarf nearly 2 hours before (Figure 1). She was complaining of dry cough only. The physical examination was normal. P-A chest roentgenogram of the patient revealed the foreign bodies in both lungs without any other abnormalities (Figure 2). The patient underwent a diagnostic and therapeutic FFB process (Olimpos, BF-20XD) under local anesthesia. During this examination, 2 different 3.5 cm length pins were seen in two different locations. One was in the intermedier bron-

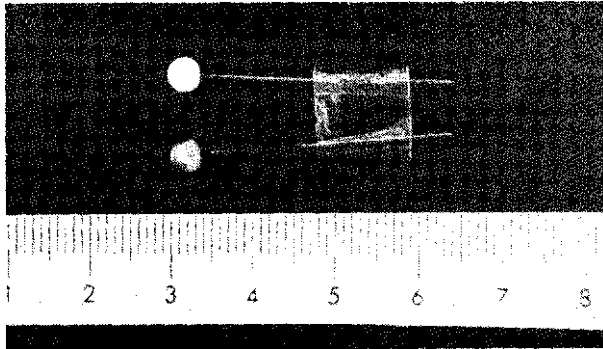


Figure 1. Head scarf pins. They were moved from right and left tracheabronchial tree. Plastic ball diameter: 4 mm., Pin diameter: 0.5 mm., Pin length: 35 mm.

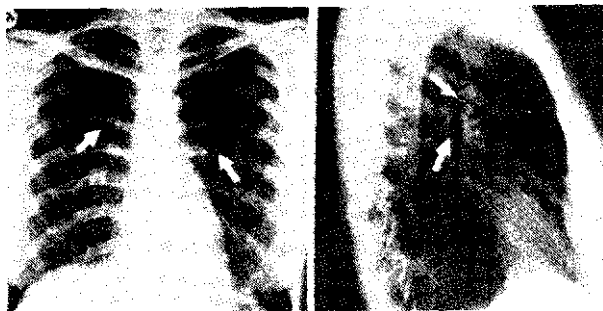


Figure 2. Posteroanterior and lateral chest roentgenograms, two hours after aspiration.

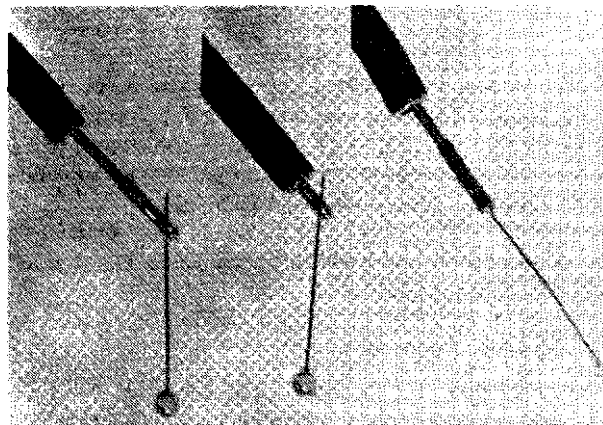


Figure 3. Holding positions of pin with FFB.

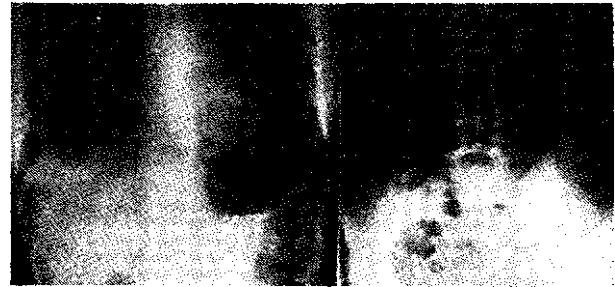


Figure 4. 5. Just after bronchoscopy, pin was shown in stomach region. And eighteen hours after bronchoscopy, pin was shown in sigmoid region.

chia of the right lung and the other was in the upper lobe bronchia of the left lung. Pins were stuck into the bronchial wall. And the tips of the pins were located on distal. For the removal of the foreign bodies, standard biopsy forceps were used (Figure 3). At first, attempts were made to remove the pin in the right lung. The visible part of the pin was held with biopsy forceps and pushed down to release it from the wall. The first attempt to extract the pin holding it straight was not successful due to sliding of the pin from the forceps. The next attempt was successful when the pin was held diagonally by the tip of it. In this position the pin was not allowed to slide and stick again into the bronchial wall. Then the forceps were pulled up to the mouth of the internal tube of the bronchoscope and later the bronchoscope along with the forceps and the pin were taken out. For the removal of the second pin in the left lung, the same procedure was used. While holding the pin diagonally the patient started coughing. As a result, it stuck again into the bronchial wall deeper. Then the pin was later released from the bronchial wall with the help of the biopsy forceps. It was held again by the tip of the pin and forceps pulled it up to the mouth of the internal tube of the bronchoscope. During the procedure when the bronchoscope was on the glottis the pin was accidentally dropped. On the bronchoscopic examination it could not be found. Another chest roentgenogram was taken. This roentgenogram revealed that the pin was in the stomach region in the abdomen (Figure 4). On the upright direct abdomen film which was taken 18 hours later, the pin was seen in the sigmoid region (Figure 5). Twenty four hours after bronchoscopy, the pin came out with the stool of the patient. During the control visits of the patient after 2 and 4 weeks, chest roentgenograms and the physical examinations of the patient were found normal.

DISCUSSION

Foreign body aspirations are often seen especially in infants, children, psychotics and in the poor socioeconomic populations (1,2,4,5,6). Some professional

workers such as electricians, carpenters, tailors etc. who work with nails, thumbtacks and pins usually take these into their mouth, which often results in aspirations of these materials (4,5). Eating fast is another common cause of aspiration (3). Recently, in our contry, aspiration of the scarf pins which are used to attach head scarf by some young muslim women, is very common. They hold one or two of these pins in between their teeth while attaching the head scarf with them (Figure 1).

For the removal of foreign bodies, there are different opinions regarding to the method and the selection of the appropriate type of bronchoscope. In children and in chronic cases, rigid bronchoscope is recommended under general anesthesia (1,2,4,5). it is reported that for the removal of the peripherically located foreign bodies which are invisible with rigid bronchoscope, FFB can be used succesfully (3).

We have reported here that peripherically and bilaterally located two scarf pins were removed with a new approach by using biopsy forceps. The pins were stuck deep into the bronchial wall but they were removed by holding them diagonally with the forceps. This case report shows that FFB is an appropriate procedure to remove all kinds of metallic foreign bodies in

adults without any complications. This procedure can be administered under local anesthesia even if the foreign bodies are located peripherically.

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