

## Research Article

## Use of head scarves pin and their consequences in young Muslim girls in Kashmir

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**Abstract:** Background: Foreign body ingestion is not so common in day today life but the recent change in increase in use of veil by Muslim girls has shown an upward trend in the accidental ingestion of these things. Foreign bodies with smooth edge are usually harmless with spontaneous passage while with sharp edge may have serious consequences in the form of bowel perforation or obstruction. The aim of our study was to evaluate and educate the young Muslim girls about the use and complication of hair pins. Methods: In this study 130 patients were admitted with the history of ingestion of foreign bodies in the department of Surgery, Government Medical College Srinagar over a period of two year from May 2016 to April 2018. All patients were evaluated including base line investigation, series of abdominal radiographs and frequent abdominal examinations. Results: Majority of patients were females in the age group of 11-20 with 71 (54.61%) of patients. Head scarf pins were the commonest foreign body in 78 (60%) of female patients. Maximum number of patients was managed conservatively. Conclusion: The rising trend in the ingestion of metallic foreign bodies especially hair pins need to be used with precautions to prevent serious health hazards like bowel perforation.

**Keywords:** Foreign body, Head scarf pin, Muslim women, upper GI endoscopy

### INTRODUCTION

In the muslim world particularly in Kashmir valley adolescent girls use headscarf (turban) to cover their head and fix it with multiple pins usually six to eight to hold it in position (Akbulut, S. *et al.*, 2009). Ingestion of foreign body occurs at any age but majority occurs in childhood with peak incidence between 6 months to six years (Mir, S. A. *et al.*, 2016). Ingestion of foreign body needs urgent evaluation as it may lead to catastrophic respiratory or gastrointestinal complication (Wright, C. C., & Closson, F. T. 2013; Walker, W.A. *et al.*, 2004). With available literature the most commonly swallowed foreign bodies by adults are: Fish bones (9–45%), Bones (8–40%) and Dentures (4–18%) (Peng, A. *et al.*, 2012). Foreign bodies with a blunt end do not constitute a problem, the ones with sharp edges lead to serious complications to respiratory or gastrointestinal tract even perforation (Wright, C. C., & Closson, F. T. 2013). According to the literature, 90% of ingested foreign bodies pass through the gastrointestinal tract safely without any complications (Conners, G. P. *et al.*, 1996).

### MATERIAL AND METHODS

This study was done in the department of general Surgery in Government Medical College Srinagar over a period of two year from May 2016 to April 2018. All the patients with history of foreign body were admitted in the causality. With detailed history and examination, maximum number of patients had accidental ingestion of headscarf pins. Radiographic examination of neck, chest and abdomen was done in all patients. Computerized tomography was done in all cases with persistent symptoms like abdominal pain, patients with no signs of foreign body progression and in cases of complications if they were haemodynamically stable. Patients with foreign bodies in tracheobroncheal tree were sent to ENT department and those with foreign bodies in gastrointestinal tract were admitted in the surgical ward with all baseline investigations ready for laparotomy if needed. Patients with foreign body seen in upper part of abdomen were sending for upper gastrointestinal endoscopy. Stable patients with foreign body in the lower part of abdomen were watched for spontaneous passage with daily

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radiographs and stool examination. After the removal of foreign body, reevaluation was performed by endoscopy in terms of complications including mucosal erosion and perforation. All patients who underwent endoscopy were allowed to take orals on next and were discharged on the same day; patients who underwent laparotomy were discharged after tolerating orals and passage of stool.

## RESULTS

In this study 130 patients were studied with accidental history of foreign body ingestion. All the patients reported to the hospital within six hours. Maximum number of patients was females in the age group of 11 to 20 years [Table 1]. Among female patient's 78 (60%) patients had accidental ingestion of headscarf pins while fixing it with pins [Table 2]. In 2 patients hairpin had penetrated the bowel wall and there was free fluid in peritoneal cavity, laparotomy was done and foreign body was retrieved from peritoneal cavity. Most of the patients 78 (60%) were managed with conservatively with wait and watch policy, while 51(39.23%) patients were managed with upper gastrointestinal endoscopy and 1 (0.76%) patient was managed with laparotomy [Table 3]. Respiratory difficulty or cyanosis did not develop in any patient, no psychiatric disorder was found in any patient who was included in the study.

**Table 1: Showed age and sex wise distribution**

Age (years)	Males (%)	Females (%)	Total
0-10	4 (3.07%)	5(3.84%)	9
11-20	7 (5.38%)	71 (54.61%)	78
>20	0 (0.00%)	43 (33.07%)	43
Total	11 (8.46%)	119 (91%)	130

**Table 2: Showed types of foreign body ingestion**

Type of foreign body	Males (%)	Females (%)
Scarf pins	9 (6.92%)	78 (60%)
Coins	16 (12.30%)	10 (7.69%)
Bones	6 (4.61%)	4 (3.07%)
Others	3 (2.30%)	4 (3.07%)

**Table 3: Showed management of foreign body**

Management (options)	Number (%)
Conservative	78 (60%)
Upper GI Endoscopy	51(39.23%)
Laparotomy	1 (0.76%)
Deaths	0 (0.00%)
Total	130

## DISCUSSION

Ingestion of foreign body may be seen at any age but it is more commonly seen in child age group who ingest them accidentally while playing. It has been found that 40 % of cases of ingestion occur without the recognition of the parents (Sugawa, C. *et al.*, 2014; Ciftci, A. O. *et al.*, 2003). The risk of complications

varies with the nature of foreign body, the damage occurs more with long sharp metal objects and animal bones, and may be higher in patients with adhesions due to prior abdominal surgery (Elmustafa, O. M., & Osman, W. N. 2009). Turban pin aspiration" syndrome was defined in a case by Ucan *et al.*, and in adolescent girls by Kaptanoglu *et al.*, (2007) (Ucan, E. S. *et al.*, 1996). In our study, maximum number of patients were females 119 (91%) who had history of foreign bodies, among them 78 (60%) of patients had accidental ingestion of headscarf pins. In the study conducted by Aydođdu *et al.*, in Turkey in which 176 children who ingested foreign body were evaluated, the first two agents were found to be safety pin (36%) and pin (27%) (Aydođdu, S.*et al.*, 2009). With use of headscarf (Turban) in Muslim world, they hold pins in-between teeth or lips to get a free hand while doing or undoing headscarf which results in inhalation of ingestion of pin while breathing (Mir, S. A. *et al.*, 2016; Peng, A. *et al.*, 2012). These pins have a long slim body and a round colored plastic bead at one end. The beaded end is heavier than the rest of the pin and therefore the pin usually falls with beaded end pointing downwards. In our study 78 (60%) were managed conservatively with repeated X-ray and examination of stool to see the spontaneous passage of foreign body, while 51(39.23%) of patients underwent immediate upper gastrointestinal endoscopy and retrieval of foreign body was done from stomach and duodenum without any complication. Sharp objects such as pins, needles, and open safety pins present special problem because of high incidence of intestinal perforation (Ucan, E. S. *et al.*, 1996). In case of sharp object body or battery ingestions wait and watch policy is not followed, immediate endoscopy is done due to fear of perforation. In our study fish and chicken bones were retrieved from esophagus in 6 (4.61%) male and 4 (3.07%) of female patients. A study conducted in Hong Kong region in China which has a different culture, showed bones in the esophagus with a rate of 85% and 60% of these bones were fish bone (Nandi, P., & Ong, G. B. 1978). In our study one patient developed peritonitis and laparotomy showed small bowel perforation which was managed surgically.

## CONCLUSION

Most of the young females in the Muslim world wear head scarves because of their religious belief. Pin ingestion can be managed with retrieval with the help endoscopy if reported in the early hours or can be managed with wait and watch policy with close supervision in the hospital to manage any complication, besides young females should be educated properly to prevent pin related fatal consequences.

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