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Research Article

**AN OBSERVATIONAL STUDY ON THE FOREIGN BODIES  
NOSE IN CHILDREN IN MAYO HOSPITAL LAHORE**<sup>1</sup>Dr. Firdaus Fatima Tiwana, <sup>2</sup>Dr. Zareen Tahir, <sup>3</sup>Dr. Hassan Iftikhar<sup>1</sup>Services Hospital Lahore.

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**Abstract:**

**Objectives:** The main aim of this case study is to find out the management of the patients and outcomes of the foreign objects in the nose of the children.

**Methodology:** This elaborated study conducted in the department of ENT, Mayo Hospital Lahore. This study started in March 2018 & lasted up to February of 2019. Total 257 patients of FBN (Foreign Bodies in Nose) up to the age of twelve years were the part of this research work. The personal information of the patients, medical aspects, interrogations, the details of the management & problems record maintained on a special organized Performa. In very small non-cooperative patients, the removal of the foreign objects conducted under anesthesia. In the cooperative patients, suction, hook for body & forceps were in use instead of anesthesia.

**Results:** Among the total patients of FBN, 48.460% were in the age group of 4-8 years, with the dominance of the male patients as 63.0%. Bilateral & unilateral appearances were available in 95.0% & 5.0% patients respectively. The most frequent foreign objects were beads of plastic, sponge pieces, beads & objects of small round shape. We also found 2 patients of the alkaline battery stuck in nose. We found a great success rate with the general anesthesia.

**Conclusion:** Objects with round shape & small children have association with adverse results with several efforts for removal under the normal vision. The transfer of these patients should be carry out to the otolaryngologists for elimination of the objects with the help of anesthesia.

**Keywords:** FBN, Foreign, objects, methodology, association, bilateral, unilateral, management, dominance, anesthesia.

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**INTRODUCTION:**

It is the daily routine work of otolaryngologists to remove unnatural objects from the nose of children [1]. Emergency department usually counters the FBN issues. These complication are mostly present in children but adults can also be the victims of such complications, particularly for those who are suffering from some mental illness [2]. The interest of the children in the exploration of their parts of body make them the victims of the foreign objects in nose. They can also enter the object in the nasal cavity to reduce the irritation because of the already existing mucosal material. It can be very dangerous and can be the cause of mortality if the objects dislodgement took place inside the airway [3, 4]. There are two types of classification for the foreign bodies, one is organic and other is inorganic. Plastic and metal materials are inorganic [5]. Common examples of the inorganic materials are plastic pearls, small stones, buttons, toys parts, & paper. The organic materials include vegetables, seed, wood parts, sponges and batteries of metals and these are more irritating and have early symptoms [6].

The most frequent site for the lodge of the foreign objects is under the inferior turbinate [7]. The unilateral objects have an impact on the right side twice greater than the effect on the right side. This is due to the priority of the right handed persons to enter the foreign bodies in right nostril [8]. Septal lesions can be result of the insertion of batteries. Failed attempts to remove unnatural objects may lead to the bleeding, excessive pain, injury as well as make this removal very hard [9, 10]. This is very vital research work to classify the traits of the foreign objects of nose, the rate in various children age group,

administration methods & to evaluate the results on the basis of these features. This study can be helpful to find out the proper administration for the patients suffering from FBN when they would appear in OPD of the emergency department.

**METHODOLOGY:**

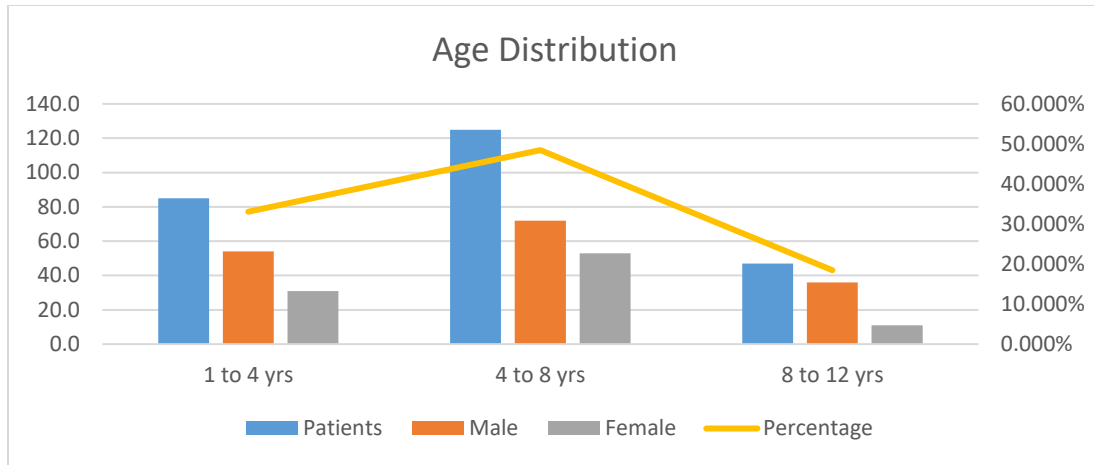
This was an elaborated research work conducted in the department of ENT in Mayo Hospital Lahore. This research work covered a complete duration of one year from March 2018 to February, 2019. Total 257 patients having the age of less than 12 years were the part of this case study. The personnel information of the patients, medical aspects, examinations, details of surgical administration & complication record maintained with the help of special organized Performa. Most of the patients appeared in OPD of emergency, carried by their parents with the problem of FBN on the very day, after two to three days & some were older than 2 to 3 weeks.

The different procedures for the foreign objects removal were direct use of vision & removal with the help of forceps, hook for the removal of foreign body & utilization of suction. The children having less age or non-cooperative, or disappointment in the removal of the foreign objects because of deep impaction or found with past ineffective efforts conducted to get rid of this problem under anesthesia.

**RESULTS:**

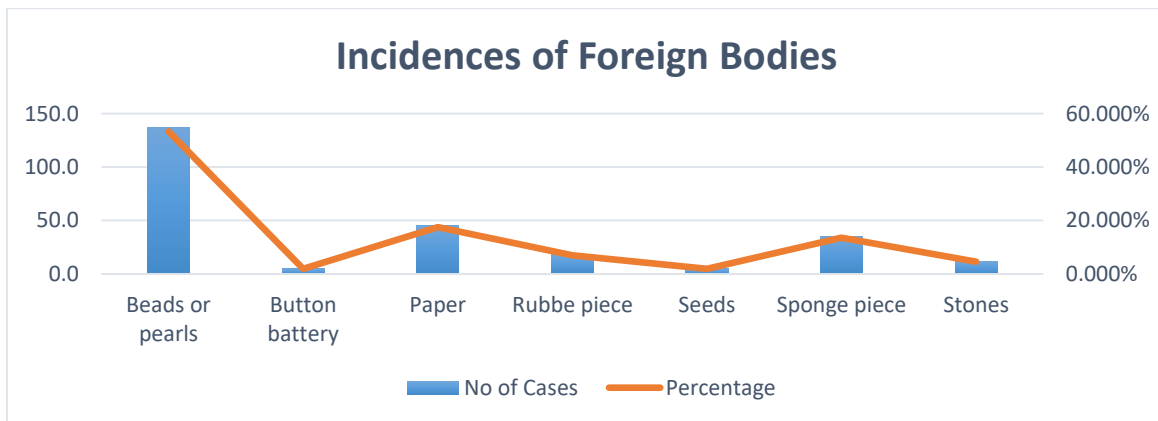
In this study, very frequent age group of the children was 4 to 8 years (48.460%) as displayed in Table-1. One hundred and sixty two were male patients and 95 were female patients.

Table-I: Sample's Age Distribution				
Age group	Patients	Male	Female	Percentage
1 to 4 yrs	85.0	54.0	31.0	33.070%
4 to 8 yrs	125.0	72.0	53.0	48.460%
8 to 12 yrs	47.0	36.0	11.0	18.460%



The most frequent types of the foreign objects were beads & pearls of plastic, pieces of sponges, seeds of vegetables, pieces of rubber & batteries as shown in Table-2.

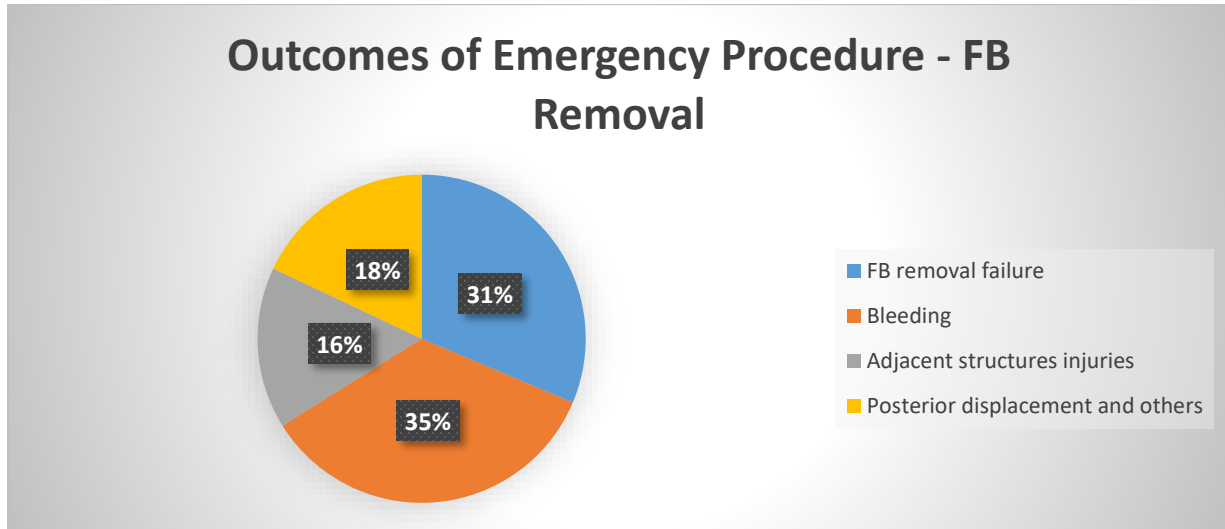
Types of FB	No of Cases	Percentage
Beads or pearls	137.0	53.300%
Button battery	5.0	1.940%
Paper	45.0	17.500%
Rubbe piece	18.0	7.000%
Seeds	5.0	1.940%
Sponge piece	35.0	13.600%
Stones	12.0	4.600%



The professionals of the department of emergency faced number of problems for the mitigation of these problems without the implication of anesthesia. Those complications were failure in the removal of the objects, bleeding, pain and deeper placement of the objects as presented in Table-3.

The removed foreign objects without the application of anesthesia were 20.70% from 1-4 years, 49.90% were in age group of 4-8 years & 69.80% were in the age group of 8 to12 years while the patients under the application of anesthesia were 96.60% from 1 to 4 years of age, 84.70% from 4 to 8 years of age and 55.70% from 8 to 12 years of age.

Table-III: Foreign Body Removal Without Anaesthesia	
Emergency procedure	Percentage
FB removal failure	26.00
Bleeding	28.80
Adjacent structures injuries	13.20
Posterior displacement and others	14.90



### DISCUSSION:

There is a very high occurrence of this problem but studies on this subject are very low in number [1-10]. The victory in the removal of the foreign objects depends upon the shape, structure and the size of the object, the duration of the foreign body in nose, patient's cooperation and trauma to the nose during removal of the object as well as skill of the professionals [2]. In this research work, the most common group of the patients was from four to eight year of age as 48.46%. This was much close to a case study conducted in Singapore as 43.30% [11]. While one research work conducted in Lahore opposed this finding and displayed 71.0% [2] in the patients with same age. In this case study, foreign objects found in males were 63.840% & in females 36.150%, which has comparison to a case study conducted in America in which 52.0% were males and 48.0% were the females.

The most common types of the foreign objects were the beads & pearls made up of plastic. Their percentage was 53.30% while other foreign objects were pieces of paper 17.50%, piece of sponge 13.60%, piece of rubber 7.0%, stones 4.60%, seeds 1.940% & cell batteries 1.940%. We found the low rate of success in the patients having less than four year of age

without anesthesia. In the case work of Shulze SL, more than 95.0% patients were requiring the removal of foreign body under anesthesia because of less than 4 year of age [12]. In current case work, we found 2 patients with alkaline batteries [13]. The removal methods can vary according to emergency from visualization, special tools to suction [10]. We found that highest rate of complication has an association with the foreign body of spherical shape. Under direct visualization, we found a high success rate of the removal for paper or piece of plastic.

The result of the removal of foreign objects without application of general anesthesia in this case work were bleeding 28.80%, unsuccessful removal 26.40%, injury to nasal cavity 13.20%. The foreign bodies can damage the structure of the nasal cavity which leads to swelling. The swelling causes the restriction in the drainage of sinus which is the reason of secondary sinusitis. The organic objects have the ability to swell the area & more symptomatic as compared to the inorganic objects. The foreign objects of nasal cavity are not recognizable easily for a long duration because there are very few symptoms of this issue and visualization of such objects is very difficult.

**CONCLUSION:**

Emergency department usually faces these type of complications. Generally, physician of the emergency can easily remove such objects from the nose of the patients. The role of management is very vital to reduce the complications which are the result of the failed attempts. Under anesthesia removal is 100% successful. This problem can lead to the severe consequences without anesthesia.

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