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ANALYSIS OF ENT FOREIGN BODIES AND THEIR MANAGEMENT IN TERTIARY CARE HOSPITAL

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ABSTRACT

Foreign bodies in ENT are the most common emergency encountered in ENT section of hospitals. The management calls for prompt & precise techniques which in turn decrease various complications in these patients. This study was conducted on 250 patients in SMHS hospital Srinagar which is tertiary care hospital associated with medical college with complaint of foreign body insertion / impaction. Comprising 135 (54%) males & 115 (46%) females. With male: female ratio= 1.17: 1. 112 patients (44.8%) presented with ear foreign bodies, 65 patients (26%) presented with nasal cavity foreign bodies, 63 patients (25.2%) presented with throat (oropharyngeal / hypopharyngeal) foreign bodies. Esophageal & Tracheo bronchial were 5 cases (2%) each. General anesthesia was given in 59 cases (23%). Most of foreign bodies were removed by post graduates followed by Registrars & Consultants. Foreign bodies in the ENT orifices remain a major concern in ENT practice. Early detection & proper removal techniques will reduce complications that occur in these patients

Key Words: *Foreign Body, Ear, Bronchoscopy, Tracheobronchial Tree*

INTRODUCTION

Foreign bodies have long been a source of morbidity & mortality. Management calls for prompt and precise techniques which have improved over time. For the otorhinolaryngologist they perform the bulk of emergency services in the ear, nose, pharynx, larynx & esophagus. Foreign bodies lodged within the ear, nose, larynx, trachea, pharynx or oesophagus may present as a minor irritation or life threatening problem. In a cooperative patient, the majority of ear and nasal foreign bodies can be removed with ease. General anesthesia may be required in some Pediatric patients, uncooperative patients and most of foreign bodies in aerodigestive tract. Foreign body impaction continues to impose a heavy burden on patients and otorhinolaryngologists but has not been audited in our setting. We present analysis of 250 cases of foreign bodies managed in Department of ENT and HNS of Government Medical College, Srinagar.

MATERIALS AND METHODS

This retrospective study was conducted in the department of otorhinolaryngologist, Government Medical College, Srinagar, Kashmir.

Cases were selected from the year 2012. Consecutive patients presenting with foreign bodies in ear, nose, throat or aero digestive tract were included in the study. Demographic data as well as site were obtained from the patient or the relatives in case of Childs. The type of anesthesia, type of procedure and Grade of Staff (whether resident, registrar or consultant) involved in dealing & removing of foreign bodies are presented in table & figures.

RESULTS AND DISCUSSION

Results

A total of 250 cases of foreign body inserted were included in the study. Out of 250, 135 (54%) were males & 115(46%) were females giving male / female ratio of 1.17: 1. The ears were the most common

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site of lodgment of foreign bodies. This occurred in 112 (44.8%) patients. This was followed by the nasal cavities in 65 (26%) and throat (oropharynx & hypopharynx) in 63(25%) patients. General anesthesia was required in 59 (23.6) patients which mostly include foreign bodies in hypopharynx and tracheobronchial tree. Procedures which were done for removal of foreign bodies include simple removal with hook or forceps in most cases of nasal & ear foreign bodies. Removal with Direct laryngoscope and hypopharyngoscopy was done in 63 patients, esophagoscopy in 5 patients and bronchoscopy in 5 patients. Most of foreign bodies were removed by post graduates on duty (169 cases) followed by registrar (69 cases). Consultants usually performed bronchoscopy

Discussion

Foreign bodies in some studies were seen to be inadvertently acquired and in some cases were acquired deliberately (Bhatia, 1989; Das, 1984). We found higher incidence of foreign among children under 10 years (>70%). This is the experimental & inquisitive age when children are mainly in the primary school & are prone to rough plays. This is consistent with studies done by other authors who observed that children less than under ten years more prone to inserting foreign bodies into various orifices in head and neck (Iseh and Yahya, 2008; Ogunleye and Sogebi, 2005; Okoyne and Aoata, 2008). We observed male preponderance, male: female ratio 1.17: 1, which is consistent with studies done by other authors (Ogunleye and Sogebi, 2005; Okoyne and Aoata, 2008). This suggests male are more susceptible than female to foreign body insertion in the orifices. In this study we observed ears were the most common site of lodgement of foreign bodies (44.8%) followed by nose (25%) and throat (orophaynx & hypopharynx) 25.2%. Onyeagware *et al.*, also found in his study ears and nasal cavities as the most common site for impaction of foreign bodies (Onyeagware *et al.*). In this study general anesthesia was required for 23.6% patients. Basem and Hib has mentioned about anesthesia in ENT emergencies (Basem and Hib). Ansley (1998) has mentioned that GA may be required for removal up to 30 % of objects, especially in pediatric population in case of aural foreign bodies (Ansley, 1998). Our study showed most of foreign bodies in ear and nose are removed with forceps, syringing or hook without GA. Fritz *et al.*, (1987) depicts that techniques for removal of foreign bodies include irrigation, suction, or a combination of the these (Fritz *et al.*, 1987). Foreign bodies lodged in orophaynx and naso pharynx were also removed under LA as office procedure without GA. Usually rigid endoscope was used for removal of bone chips in hypopharynx and oesophagus under general anesthesia. Lam and Wooj (2001) has mentioned that rigid endoscopy gives a much better view of hypopharynx, cricopharynx and first few cms of cervical oesophagus (Lam and Wooj, 2001).

Table 1: Shows sex distribution of patients

SEX	NO. OF CASES	%AGE
Male	135	54%
Female	115	46%

Table 2: Shows site of foreign bodies

SITE	FREQUENCY	PERCENTAGE %
Ear	112	44.8
Nasal Cavities	65	26
Throat (oropharynx & Hypopharynx)	63	25.2
Oesophagus	5	2
Tracheobronchial	5	2
Total	250	100

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Table 3: Shows type of procedure for removal of foreign body

Type of Foreign body	Procedure for Removal	No. of cases (%)
Ear / nasal foreign bodies	Removal with forceps, syringing or hook	177 (70.8%)
Throat(Oropharynx & Hypopharynx)/foreign bodies	Direct laryngoscopic & hypopharyngoscopic removal	63 (25%)
Oesophagus foreign bodies	Oesophagoscopy	5 (2%)
Tracheobronchial foreign bodies	Bronchoscopy	5 (2%)

Table 4: Shows grades of staff involved in removal of foreign bodies

Grade of Staff	No. of cases
Post. Graduate	169 (67.6%)
Registrars	69 (27.6%)
Consultants	12 (4.8%)

Foreign bodies in tracheobronchial tree were removed with rigid bronchoscope and under general anesthesia. Telescopic forceps were used sometimes for retrieval of foreign bodies. Pasa glouI eta al mentioned that rigid endoscope is traditionally believed optimal instrument for tracheo bronchial foreign bodies (Paraglu and Dogan, 1991). But nowadays, standard 3.6mm paediatric flexible bronchoscopes are used (Swanson, 2002; Ellam, 2000). But unfortunately these bronchoscopes are not available at our setup. In present study 169 cases (67.6%) of foreign bodies were removed by post graduates and 69 cases (27.6%) were removed by registrars. Consultants have mainly performed bronchoscopes and few oesophagoscopies. Nigel (1994) in his study found 62% ENT emergencies are managed by senior house officers and 11% by senior registrars and 1% by consultant (Nigel, 1994; Biswas *et al.*, 2000). These figures are close to our study.

Conclusion

Foreign body impaction is a big burden in this environment and of great public concern. The most vulnerable group is children, ear being most common site. General Anesthesia needed in few cases and foreign bodies are mostly removed by post graduates. There is need for more public enlightenment about the dangers inherent in foreign body insertion and attempts at their removal by untrained personnel.

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