

An audit of endoscopic otorhinolaryngological practice in Jos, Nigeria

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Abstract

Background: Endoscopic otorhinolaryngological procedure is quicker, safer and cheaper than open surgery because of its less invasive nature. It is constantly being practiced in the developed nations and the Middle East. The indications abound in our environment. However, very few hospitals have the facilities for these procedures. The aim of this paper is to highlight the state and scope of our endoscopic practice.

Method: All the case records of patients who had endoscopic otorhinolaryngological procedures within the 18 months in two teaching hospitals were retrieved and biodata, endoscopic findings and management were extracted.

Result: A total of 100 cases made up of 79 (79%) adults were seen within the study period. Their ages ranged from 9 months to 76 years with average age of 42.3 years.

Diagnostic endoscopic procedures were 76 (76%) while therapeutic cases were 24 (24%). Laryngoscopy was the most common endoscopic procedure constituting 62 (62%) cases.

Others included oesophagoscopy (20%), bronchoscopy (10%)
Conclusion: Endoscopic procedure is safe. Dearth of endoscopic equipments is a major impediment to the practice of this procedure in our environment. Collaboration between centers is a quick way to circumvent this problem and helps to keep the specialist proficient.

Keywords: Otorhinolaryngology, Endoscopy, Indications, Jos

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Introduction

The world today is tending more towards minimally invasive surgeries. The Head and Neck surgery specialty is no exception. However endoscopic otorhinolaryngological (ORL) practice in Jos has been very limited in the last decade in spite of its numerous advantages.¹ Studies in the last decade in Nigeria focused more on rigid oesophageal endoscopies^{2,3} whereas endoscopic otorhinolaryngological practice is routine in the developed world and the Middle East.^{4,5,6} The reason for this is the lack of appropriate endoscopic equipment in our institutions.

The aim of this paper is to highlight the state and scope of our endoscopic practice in this environment.

Materials and Methods

This was a retrospective study of patients who had ORL endoscopies at the Bingham University Teaching Hospital and the Jos University Teaching Hospital, Jos over an 18 months period. The age, gender, indications, endoscopic procedures, findings, and treatment were

extracted from the case notes of the patients. All the rigid endoscopies (oesophagoscopy, bronchoscopies) were carried out under general anesthesia except the nasal endoscopy, flexible laryngoscopies, and bronchoscopies which were carried out under local anesthesia using 1% lignocaine /0.5% hydroxymethazolone in 10mls spray mixed with a vasoconstrictor for 15 minutes before the commencement of the procedure. The patients undergoing the flexible bronchoscopy had the airway nebulized for 20 minutes with 6mls of 1% lignocaine and 4mls of 2.5mg albuterol. Their vital signs were monitored at intervals during the procedure with intravenous line access secured.

The patients that were relatively stable especially those with foreign body in the oesophagus and the plastic materials had plain radiographs of the upper chest and neck region done but those in distress had emergency bronchoscopy without radiograph. The results are presented as frequencies with proportions

Results

A total of 100 cases consisting of (21[21%] children and 79[79%] adults) were seen within the study period. There were 66 males and 34 females, giving a ratio of 1.9:1. The ages ranged from 9 months to 76 years with an average age of 42.3 years. The commonest age group involved was age group <5 years.

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Endoscopic Procedures

Table 1. shows the indications and endoscopic procedures. The endoscopic procedures were diagnostic in 76 patients (76%) and therapeutic in 24 (24%) patients. All the 76 diagnostic endoscopic procedures were laryngoscopies. Laryngoscopy was the most common endoscopic procedure consisting of 62 (62%) cases out of which 36(36%) were rigid and 26(26%) flexible techniques respectively.

Oesophagoscopy endoscopic procedure was made up of 3 (3%) diagnostic and 17 (17%) therapeutic procedures. It was the most common therapeutic endoscopic procedure and mainly for foreign body removal in 13 (76.5%) children and 4 (23.5%) in adults. Rigid oesophagoscopy accounted for 17 (70.8%) out of the 24 therapeutic procedures.

Bronchoscopy procedure accounted for 10 (10%) cases comprising 3 (3%) diagnostic and 7 (7%) therapeutic indications, others were nasopharyngoscopies and nasal endoscopy in 7 (7%) and 1(1%) respectively; the last two were for diagnostic purposes only.

Indications

The foreign bodies constituted 25 (25%) with 20(80%) occurring in children while the remaining 5 (20%) were in adults. The foreign bodies consisted of coins 8 (40%), ear rings 2(10.0%) and peanuts 2(10.0%). Less common finding included denture (3%), steak meat syndrome (2%)

Tumors were found in 44(55.7%) of 79 adult endoscopic cases (commonly in age groups 41-45 years, 56-60 and 66-70 years). Laryngeal tumors alone constituted 32(72.7%) followed by nasopharyngeal cancer 7 (15.9%) and oesophageal carcinoma in 3(6.8%).

Table 1. Endoscopic otorhinolaryngological procedures in Jos, Nigeria

Variables	Frequency (N)	Percentage (%)
Indications		
Foreign body	25	25
Tumours	44	44
Laryngitis	4	4
Others*	27	27
Procedures		
Laryngoscopy	62	62
Oesophagoscopy	20	20
Bronchoscopy	10	10
Nasopharyngoscopy	7	7
Nasal endoscopy	1	1

Discussion:

The finding of the predominance of foreign body ingestion amongst children is in support of the findings of Adoga¹, Ubah², Iseh³, and co workers in Jos, Ile-Ife and Sokoto respectively and Yang⁷ in Singapore. These workers noted that pediatric age group 0-10 years was more at risk of undergoing endoscopies because of their high tendencies to ingest foreign bodies. Our findings also concur with that of Ahmad et al in Kashmir⁸ who noted that most malignancies occurred between 4th -6th decades of life needing biopsies for accurate diagnosis and treatment.

In this study the majority of the procedures were for diagnostic events a feature previously noted by an earlier study from the same environment by Adoga et al¹. Laryngoscopy was the most common endoscopic procedure

There were 36 (47.4%) rigid laryngoscopies in this study, a finding that compares favourably with previous reports from India^{9,10} and England where rigid laryngoscopy was the choice of endoscopic technique out of sophisticated tools such as stroboscopy and videokymography. Rigid laryngoscopy is a non invasive, easily available and fairly accurate diagnostic tool in patients with voice disorders.⁹ In the study by Nerurkar and colleague, they had 47 and 10 patients respectively made up of benign and malignant lesions on one hand and malignancies only on the other hand where as all our patients had laryngeal carcinomas. In contrast to our study Iseh et al³ in Sokoto had 75 cases of pharyngoesophageal foreign bodies as the most common rigid endoscopic indication in their centre. In our study, we used flexible laryngoscopes for visual diagnosis only in 26 patients without obtaining biopsies because of fear of obtaining limited tissues for diagnosis. This finding concurs with previous reports^{11,12} respectively.

Oesophagoscopy ranked second in the indications and was the most common therapeutic endoscopic procedure, mainly for foreign body removal. This finding agrees with earlier studies^{1-3,13} that oesophagoscopy was the most common emergency endoscopic procedure in their centers but differs slightly from our study for the reason that it was the second most common indication.

A notable limitation of the study includes incomplete data leading to exclusion of eleven cases and this accounted for the fewer figure currently reported. This may have impacted on our findings.

Conclusion

Endoscopic procedure is safe and cheaper than open surgery. The complication from this procedure is very minimal in trained hand.

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