Research Article,

The Pattern of Ear, Nose & Throat (Ent) Surgeries in A Secondary Health Centre in Enugu South Local Government Area of Enugu State Sourth-East, Nigeria

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Abstract:
There is a wide spectrum of ear, nose and throat surgical conditions affecting both children and adults in Nigeria. This study aimed at determining the prevalence, socio-demographic features, types of ear, nose and throat surgical procedures in a secondary health centre in Enugu.

Patients and Methods:
This was a retrospective hospital based study of ENT clinic operation booking register and theatre operation register. Data obtained were collated, documented and statistically analysed using SPSS version 20.0 software.

Result:
A total of 75 patients were operated at the centre during the period under review. The female to male was 1:1:2. The age range was from 1 year to 85 years. The indication for surgeries involving the throat were 67 (89.3%). The nose 7(9.2%). No surgery was performed in the ear. Adenotonsillectomy 52(69.3) was the commonest surgery performed in throat while polypectomy 4(5.3%) occurred more in the nose.

Conclusion:
Resources for Ear, Nose and throat surgeries in Enugu South Local Government are grossly inadequate. There is need for partnership with the Local Government administrator to upgrade the facilities.

Keywords: Surgeries, Ear, Nose, Throat, Pattern, Enugu South

Introduction:
There is a wide variation in patterns of ENT surgeries performed worldwide depending mostly on the capacity of personnel and facilities available in that particular ENT centre. ENT surgery is characterized by a wide range of treatments with a significant proportion of outpatient work. Surgery ranges from extensive head and neck resection and reconstruction, extensive nasal and paranasal sinus surgery that might requires endoscopy, and more common procedure such as tonsillectomy. ENT surgeons work closely with many other surgical disciplines. For instance in the field of head and neck cancer, they work with colleague in oral and maxillofacial surgery and oncology. In both anterior and lateral skull base surgery, ENT surgeons work with neurosurgeons. They also work with colleagues in ophthalmology on operations to the nose and orbit¹. Pathology in the ear, nose and throat among children are common otorhinolaryngology diseases encountered in ENT, and head and neck surgery ²,³. However this problem is common in children, it can affect any age group ²,⁴. There is wide spectrum of ENT surgical condition affecting children and adult in developing countries. Pediatrics otolaryngology surgeries represent a major part of all otolaryngology surgery ⁵,⁶. It involves congenital anomalies, surgical infections, injuries and tumors. Rhinology
encompasses clinical and surgical treatment of the nasal cavity and paranasal sinuses. Rhinologist receive intensive training on the medical and minimally invasive surgical treatment of chronic nasal and sinus disorder such as rhinosinusitis, lacrimal gland disorder, nasal polyps, sino nasal neoplasm, anterior skull base tumor and optic nerve decompression. They are also expert in endoscopic sinus surgery. Otologist deals with clinical and surgical treatment of the ear and mastoid. Otologic surgical produce include the following Aural polypectomy, mastiodectomy Auriculoplasty, Excision (auricular cyst) and cochlear implant.

Little information is available about ENT surgeries in a secondary health care in Enugu. Majority of the populace think that ENT Surgeries are performed only in a tertiary or teaching Hospital.

The study aimed at determining the pattern of Ear, Nose and Throat surgery in a secondary health Centre in Enugu South Local Government Area, South East Nigeria.

**Materials and Methods:**
The study was a retrospective hospital based study of ear, nose and throat patient who had ear nose and throat surgeries. The study was carried out over a period of two years (Jan 2017 to Dec. 2019). The study was carried out in Reggie Ear, Nose and Throat Clinical located at No 100 Agbani Road Uwani-Enugu a secondary health centre in Enugu South Local Government Area South East Nigeria.

Data from the study was obtained from the medical record department, clinic operation booking register and theatre operation register. Socio-demographic features such as age, gender and domicile were obtained. Data on patients conditions such as clinical features, diagnosis, indication for surgery and type of surgery were obtained and documented. All data obtained were collated, documented and analysed statistically using SPSS version 20.0 software. The data were then expressed in percentage, frequency tables and charts.

**Results:**
The total number of ENT surgeries done during the period of study was 75, out of which 67 cases were done in the throat and 8 cases in the nose. No surgery was done in the ear.

Table 1 showed the number of surgeries done.

| Valid | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| 1-5yrs| 44        | 58.7    | 58.7          | 58.7               |
| 6-10yrs|13        | 17.3    | 17.3          | 76.0               |
| 11-15yrs|8        | 10.7    | 10.7          | 86.7               |
| 16-20yrs|4        | 5.3     | 5.3           | 92.0               |
| 21-25yrs|2        | 2.7     | 2.7           | 94.7               |
| 31-35yrs|2        | 2.7     | 2.7           | 97.3               |
| 36-40yrs|1        | 1.3     | 1.3           | 98.7               |
| 81-85yrs|1        | 1.3     | 1.3           | 100.0              |
| Total| 75        | 100.0   | 100.0         |                    |

Table 1A showed the number of surgeries done and their indications for the surgery in Ear, Nose and throat.

**The indication for surgeries in the throat**

| indication                | frequency | Percent % |
|---------------------------|-----------|-----------|
| obst. Adenotonsilar disease| 52        | 69.3%     |
| chronic tonsillitis       | 8         | 10.7%     |
| Adenoid enlargement       | 5         | 6.7%      |
| sub labial mass           | 1         | 1.3%      |
| foreign body in the throat| 1         | 1.3%      |
| total                     | 69        | 89.3%     |
The indication for surgeries in the Nose

| Indication                    | Frequency | Percent % |
|-------------------------------|-----------|-----------|
| septal deviation              | 1         | 1.3%      |
| Foreign body in the LT        | 1         | 1.3%      |
| nasal polyp                   | 1         | 1.3%      |
| nasal polyp (B)               | 2         | 2.7%      |
| foreign body in the right nasal cavity | 1 | 1.3% |
| total                         | 9         | 9.2%      |

In this study age group 1 to 5 years had the highest number of surgery (adenostillectomy) 52 (69.3%) while the age group 81-8 years had the least number of surgery (excision) 1 (1.3%).

There were 42 males (56%) and 36 females with male to female ratio of 1.6:1. See table 3 and 3a respectively.

| Sex          | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------|-----------|---------|---------------|--------------------|
| Male         | 42        | 56.0    | 56.0          | 56.0               |
| Female       | 33        | 44.0    | 44.0          | 100.0              |
| Total        | 75        | 100.0   | 100.0         |                    |

There were various indications for surgery as shown in table 4. However obstructive adenotonsillar disease 52 (69.3%) was most common hence the surgery in the throat. Bilateral nasal polyp 2 (2.7%) was the commonest indication of nasal surgeries. See table 4.
Discussion:
Surgery is one of the main modalities of treatment in various ENT (Ear, nose and throat) diseases. Majority of ENT surgeries are performed in tertiary health facilities where equipment/instrument and human resources such as an ENT consultants, ENT resident doctors, nurse are numerous. There is a paucity of data on ENT surgeries in a secondary health care. In Nigeria, different types of ENT surgical procedure were carried out in secondary health centre of Enugu South Local Government Area of Enugu State. Prevalence of ENT procedure in this study is low due to patients’ financial constraints, nonavailable surgical equipment and other barriers to otorhinlaryngological procedure. ENT surgeries were performed in all age groups with highest prevalence in children age group 1-5 year as showed in table 2 and 2a. This finding were similar to report from Da Lilly-Tariah OB et al in Port Harcourt – Nigeria. The scope of ear, nose and throat surgery in this study showed that throat was the most common procedure done in secondary health care. Adenotonsillectomy, adenoidecctomy and tonsillectomy were the major throat procedure performed. These procedures were mostly done in children who are more prone to upper aerodigestive infection leading to tonsillitis and obstructive adenotonsillar disease. This is similar to the finding of Onotai LO et al. Rhinologic surgeries were found to be most common among adult. Few surgeries were performed and the most common was bilateral nasal polypectomy. Others were unilateral nasal polypectomy, septoplasty and foreign body in the nasal cavity. Recurrent nasal polyps secondary at chronic maxillary sinusitis was the commonest indication for rhinologic surgery in this study. (1.3%). This agreed with the study done in teaching Hospital Sokoto North West by Iseh and Mankusidi which found chronic form of rhinosinusitis to be more prevalent (83.6%). Minimal invasive surgeries that require endoscopes are the current trend in surgical practice. This current surgical practice is still not available in majority of the tertiary health care in our country. No ear surgery was done during the period of study due to obvious reasons; such as non-availability of equipment. Ear surgeries such a mastoidectomy (cortical, radical and modified radical), stapodectomy and cochlear implant will require operating microscope and highly skilled Otologist. These are not within reach of the secondary health care. Some tertiary health care do not have such facilities. However Otologic surgeries are at its
lowest in our country.

ENT surgeries in secondary health centre in Enugu South Local Government are limited mainly by material resources. Although there are few secondary health centers that performed ENT surgeries, they have consultant ENT surgeons.

**Conclusion:**
Ear, nose and throat (ENT) is characterized by a diverse range of treatment and surgical procedure. These require a vast array of medicine, devices and instruments that range in cost from the relatively inexpensive, such as ear grommets to high cost technologies such as cochlear implants.

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