RHINOLOGIC SURGERIES IN THE UNIVERSITY OF PORT HARCOURT TEACHING HOSPITAL: A 5 YEARS RETROSPECTIVE ANALYSIS.

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ABSTRACT
BACKGROUND: *Rhinologic diseases that require surgical interventions appear to be on the increase in this day and age and newer surgical techniques including various forms of endoscopic sinus surgeries are now commonplace.*

AIMS *This study established the pattern of rhinologic surgeries as seen in the University of Port Harcourt Teaching Hospital (UPTH), Port Harcourt, Nigeria. It also evaluated the outcome of management and its challenges.*

PATIENTS AND METHODS: *Theatre records of patients who had rhinologic surgeries in the Ear, Nose and Throat (ENT) surgery department of UPTH from January 2008 to December 2012 were reviewed for all essential clinical data.*
RESULTS: Sixty patients had rhinologic surgeries during the study period. There were 37 males and 23 females (male: female ratio of 1.6:1.0). Age range was 5days to 70 years, mean of 34.6 (SD +/- 10.4) years. The age group that has the highest number of surgeries was 31-45 years. The commonest rhinologic surgery done was nasal polypectomy + bilateral intranasal anstrostomy followed by Caldwel-Luc operation. The commonest indication for surgery was recurrent nasal polyposis followed by chronic maxillary rhinosinusitis.

CONCLUSION: *This study established the pattern of rhinologic surgeries as seen in the University of Port Harcourt Teaching Hospital. The commonest surgeries were nasal polypectomy with or without antrostomy and Caldwel-Luc operation. The outcome of surgery can be improved upon when procedures are done endoscopically by well trained personnel.*

KEY WORDS: *Rhinology, Rhinologic surgeries, nasal polyps, chronic maxillary sinusitis, Caldwel-Luc operation, Endoscopic sinus surgery.*

INTRODUCTION

Rhinology encompasses clinical and surgical treatment of the nasal cavity and para-nasal sinuses. It is a growing subspecialty with advances in the surgical, clinical, and research realms[1]. A Rhinologist is a board-certified otolaryngologist (ear, nose, and throat physician) who sub- specializes in the diagnosis and management of diseases of the nose and para-nasal sinuses, as well as disorders of the skull base. Rhinologists receive intensive training on the medical and minimally invasive surgical treatment of chronic nasal and sinus disorders including rhino-sinusitis, nasal polyps, nasal congestion, sinonasal neoplasms, lacrimal disorders, thyroid eye disease, pituitary tumors, sinonasal cerebrospinal fluid leaks, anterior skull base tumors, and optic nerve decompression. This includes treatment for all forms of sinus infection, nasal obstructions, sinus headaches, and difficulty with smell and taste. They are experts in endoscopic sinus surgery [1]. While patients are often referred to Rhinologists by primary care physicians, they are also commonly consulted by fellow ENT physicians, Neurosurgeons, and Ophthalmologists [1,2].

Rhinologic complaints account for a significant number of ENT ailments in our environment [3]. Rhinosinusitis is said to be the commonest viral infection in man and the commonest inflammatory disorder encountered by general practitioners, chest physicians, and otorhinolaryngologists all over the world [3,4,5]. While more than one sinus may be involved, the maxillary sinus has been found to be the commonest sinus affected5. Whereas most cases are amenable to medical treatment, a significant proportion will require surgical

intervention [3].

Newer surgical techniques including various forms of endoscopic sinus surgeries are now commonplace in the developed countries. However, rhinologic practice in Nigeria as in most developing countries has been hampered by the dearth of Otorhinolaryngologists, inadequacy of proper diagnostic and therapeutic facilities as well as poor training facilities for the upcoming otolaryngologist[3,5].

The University of Portharcourt Teaching Hospital is a tertiary healthcare facility in the Niger-Delta region of Southern Nigeria and serves as a referral centre to primary, secondary and other tertiary health facilities in the region.

Knowledge of the pattern of rhinologic surgeries in our environment will help draw attention to the challenges in the practice of rhinology and encourage funding for the training of rhinologists. This will lessen the current high trend of medical tourism with its consequent economic burden. There is a paucity of data on the pattern of rhinologic surgeries in our environment hence this study is aimed at determining the pattern of rhinologic surgeries in the University of Port Harcourt Teaching Hospital.

PATIENTS AND METHODS

This was a retrospective study of patients who had rhinological surgeries in the department of Ear Nose and Throat (ENT) surgery of UPTH from January 2008 to December 2012. The patient's data were retrieved from the theatre registers, clinic registers and patients case notes. Surgeries of the naso-pharynx such as adenoidectomy were excluded. Demographic data (age and sex), types of rhinologic surgeries and the indication for surgeries were recorded. The results were tabulated and analyzed using descriptive statistics.

RESULTS

Sixty patients had rhinologic surgeries, out of 245 surgeries carried out in the ENT theatre during the study period giving a prevalence of 24.5%. There were 37 males and 23 females (male: female ratio of 1.6:1.0). Patients were aged between 5 days to 70 years, with a mean of 34.6 (SD +/- 10.4) years. The highest number of surgeries was among the 31-45 years age group (Table 1). The commonest rhinologic surgery done was nasal polypectomy with bilateral intranasal anstrostomy followed by Caldwel-Luc operation (Table 2). The commonest indication for surgery was recurrent nasal polyposis followed by chronic maxillary rhinosinusitis (Table 3).

TABLE 1: SHOWING PATIENT AGE DISTRIBUTION

AGE RANGE (YEARS)	NUMBER	PERCENTAGE (%)
0-15	10	16.67%
16-30	15	25.00%
31-45	25	41.67%
46-60	8	13.33%
61-75	2	3.33%

TABLE 2: SHOWING TYPES OF RHINOLOGIC SURGERIES

TYPE OF RHINOLOGIC SURGERY	NUMBER	PERCENTAGE (%)
Nasal polypectomy+left intranasal anstrostomy	8	**13.33%**
Nasal polypectomy+ bilateral intranasal anstrostomy	14	**23.33%**
Nasal polypectomy+right intranasal anstrostomy	6	**10.00%**
Caldwel Luc operation	10	**16.67%**
Examination of the nose/nasopharynx+ extraction of foreign bodies	6	**10.00%**
Examination of the nose/nasopharynx+biopsy	4	**6.67%**
Incision and drainage of septal haematoma	2	**3.33%**
External frontoethmoidectomy	5	**8.33%**
Closed reduction of nasal fracture	2	**3.33%**
Medial Maxillectomy	2	**3.33%**
Excision of choanal atresia	1	**1.68%**

TABLE 3: SHOWING INDICATIONS FOR RHINOLOGIC SURGERIES

INDICATION FOR RHINOLOGIC SURGERY	NUMBER	PERCENTAGE (%)
Nasal bone fracture	2	3.33%
Recurrent nasal polyps+ maxillary sinusitis	28	46.67%
SeptalHeamatoma	2	3.33%
Chronic maxillary sinusitis	7	11.67%
Foreign bodies in the nose/nasopharynx	6	10.00%
Nasopharyngeal tumour	4	6.67%
Fibrous dysplasia of the nasal bone	1	1.67%
Frontoethmoidal Mucocele	5	8.33%
Closed reduction of nasal fracture	2	3.33%
Sino nasal tumour	2	3.33%
Choanal atresia	1	1.67%

DISCUSSION

The number and variety of surgical operations carried out in a centre is dependent on the surgical skill available, the volume of patients, the availability of necessary materials and instruments, the cost of surgery and the internal policies of the hospital [6,7]. Rhinologic surgeries in this study accounted for 24.5% of the total surgeries carried out in the ENT theatre of the University of Port Harcourt Teaching Hospital. This is slightly higher than the prevalence of 20.6% gotten for nasal surgeries by da Lilly-Tariah and Peterside in 2008 in their evaluation of the scope of ear nose and throat surgeries in the theatre of University of Port Harcourt Teaching Hospital [4].

This increase may be attributable to the addition of two extra consultants to the work force of the ENT department which had only two consultants as at the time of their study. This prevalence is also similar to that of Adoga et al in their study of Audit of Otorhinolaryngological Practice in a Nigerian Teaching Hospital in Jos in 2008 where they got 26.7% as a reflection of the burden of rhinologic ailments in their environment [2].

The male female ratio of 1.6:1.0 showed a slight male preponderance of rhinologic surgeries in our center. This is finding is similar to that of da Lilly-Tariah and Peterside who found ENT surgeries to be commoner in males with a male female ratio of 1.6:1. It is however at variance with the female preponderance of rhino-sinusitis (1.4:1.0) seen by Iseh and Makusidi in Sokoto [3]. This variance could be explained by the fact that their study was focused on rhino-sinisitis while this study encompasses other rhinologic ailments requiring

surgery.

Nasal polypectomy carried out in each of the nasal cavity coupled with intranasal antrostomy or bilateral intranasal antrostomies were the commonest surgeries done, accounting for 46.66% of all the rhinologic surgeries carried out within the study period. This agrees with the study done by Adoga et al in which intra nasal antrostomy and nasal polypectomy accounted for 89% of all rhinologic surgeries done in their centre [3]. However this finding shows a slight variation from the work of da Lilly-Tariah and Peterside in Port Harcourt 2008, in which Caldwel-luc was found to be the commonest rhinologic surgeries performed. However, both forms of surgeries address the same pathology of chronic sinus disease [4].

Rhinologic surgeries were found to be most prevalent among the ages of 31 to 45 years.
This is in keeping with the fact that nasal polyps are a disease of adults occurring mostly within the ages of 30 and 60 years although children with cystic fibrosis and occasionally teenagers develop them [3,7].

Recurrent nasal polyps secondary to chronic maxillary sinusitis was the commonest indication for rhinologic surgeries in this study (46.67%). This agrees with the work of Iseh and Makusidi in Sokoto, which found the chronic form of rhino-sinusitis to be more prevalent (83.6%) with 13.7% of cases requiring surgical treatment [3].

Although minimal invasive surgery is the current trend in surgical practice and some endoscopic surgical equipment have been acquired in our study centre, all the surgeries in this study were carried out in the conventional manner none of our patient had endoscopic sinus surgery. This is mainly due to the lack of adequate skills in the performance of endoscopic sinus surgery as a result of unavailability of funding for the training of residents and consultants in this crucial area. Consequently, patients who require endoscopic sinus surgeries are either referred to other centres within or outside the country.

CONCLUSION

This study established the pattern of rhinologic surgeries as seen in the University of Port Harcourt Teaching Hospital. The commonest surgeries were nasal polypectomy with or without antrostomy and Caldwel-Luc operation. The scope of rhinologic surgeries in our centre was limited to the treatment of complications of chronic rhino-sinusitis and other minor procedures.
It is therefore, pertinent that adequate funding and study grants be made available by the government for the purpose of training resident doctors specializing in otolaryngology and consultants in the field of rhinology. This will contribute in no small measure to a reduction in high rate of medical tourism with its consequent economic burden.

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THE PRINCIPAL CAUSES OF HOSPITALIZATION AMONGST THE ELDERLY OVER A FIVE YEAR PERIOD (2002-2006) IN A TERTIARY HEALTH FACILITY IN SOUTHERN NIGERIA.

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ABSTRACT
BACKGROUND: *Worldwide the population of the elderly is escalating hence their health need is also increasing but in a number of regions including Nigeria, little or no attention is given to the needs of the elderly.*
AIM *The study was done to identify the principal causes of hospitalization amongst the elderly population and the outcome of management.*
METHODS: *It is a retrospective study case series review of 1,046 elderly patients admitted in adult wards of the University of Port Harcourt Teaching Hospital.*
RESULTS: *The elderly accounted for 8.95% of the total admissions over the five year period. The principal causes of admissions were cerebro vascular disease(CVD), congestive cardiac failure (CCF), diabetes mellitus(DM) and its complications, hypertension with complications and cataracts. The male sex had a slight preponderance and disorders such as CVD, CCF, DM with its complications and malignancy were chief causes of mortality.*
CONCLUSION: *Physicians and care givers should be more alert to health needs of the older population. There is need for prompt diagnosis, medical care and rehabilitation to avoid worse outcomes in the elderly including preventable deaths.*
RECOMMENDATION *Research in management of common health problems of the elderly, establishing a geriatric department as well as nursing homes well equipped to carter for their needs and promote active aging.*

KEY WORDS: *Principal, Hospitalization, Elderly*

Introduction

The definition of the elderly refers to persons aged sixty five years and above.[1, 2, 12] Elderly or aged persons are classified into three categories; - the young old (65-74), old old (75-84) and oldest old (>85 years).[3] Irrespective of this definition, in the African rural community where birth record services are not available, elderly persons are noticed by their physical appearance.

The aging of the population means an increase in the proportion of people aged 65 years and above not merely an increase in the number. In 1970, the number of elderly persons was estimated at 291 million or 8% of the population. In 2000, the number reached 585 million increasing the proportion to 9%.[4] The Chinese are noted to have the highest number of elderly persons and it estimated that the elderly will make about 11% of its population at the end of the century.[5]

Aging of an individual is based on changes beginning at conception and following a definite program throughout life. The theories which have been proposed to account for aging process include gradual cellular damage through gene mutation, programmed cell death and free radical formation, aging is universal and it doesn't cause break down in homeostasis unless the system is stressed.[6]

Unlike the developed countries of the United