OUTCOME OF UNILATERAL SINONASAL MASSES IN UNIVERSITY OF PORT HARCOURT TEACHING HOSPITAL.

Abstract

Background

Unrelenting nasal obstruction sometimes associated with rhinorrhoa may suggest the presence of sinonasal growth. Two major groups commonly exist, neoplastic or inflammatory.

Materials and Method: Patients managed for unilateral nasal masses were considered, between January 2017 – January 2021. The following demographic data were recorded; age, gender, occupation, presenting symptoms, duration of symptoms. Histological type and treatment given were also analysed.

Results: Forty three (43) cases were reviewed in this study. There were (28) males and females (15) with gender ratio of 2:1. Most common presentation were rhinnorhoa, nasal obstruction and presence of nasal growth. Common histological type was inflammatory polyp.

Aim: The aim of this study is to present the clinical pattern of unilateral nasal masses in University of Port Harcourt Teaching Hospital.

Conclusion

Most common unilateral sinonasal mass was inflammatory polyps. This was followed by inverted papilloma.

Keywords

Inflammatory, Polyp, Nasal obstruction, Sinosal mass.

Introduction

Sinonasal mass may present with nasal obstruction and rhinorrhoa. Persistent unilateral obstruction may suggest the presence of sinonasal lesion, which may be inflammatory or neoplastic [1].

Most times inflammatory polyps present commonly than neoplastic lesions in unilateral nasal lesions. It is usually common to conclude that unilateral sinonasal lesion in adult is either neoplastic or inverted papilloma [2].

However, some workers have reported nasal polyp and squamous cell carcirnoma as common sinonasal lesion.

Common clinical conditions associated with inflammatory polyp include asthma, allergy, infection, and cystic fibroma.

Patients who have unilateral nasal masses may present with nasal obstruction, rhinorrhoa, hyposmia, facial pain. Sometimes it may be difficult to differentiate with common cold, especially at early stage. Hence full evaluation of patient is mandatory [3,4].

The aim of this study is to present the clinical pattern and outcome of unilateral nasal masses in University of Port Harcourt Teaching Hospital.

Materials and Methods

This was a retrospective study of patients who were managed for unilateral nasal masses at the Department of Otolaryngology of the University of Port Harcourt Teaching Hospital, which is a tertiary health institution in the South-South Nigeria.

The records of patients managed for unilateral nasal masses were retrieved and the following information were recorded; age, gender, occupation, presenting symptoms and duration of symptoms. Other recorded data were plain radiological findings and CT Scan findings. Histological results, type of treatment given and clinical status of the patient were also recorded.

Each patients had full history, clinical examination, appropriate imaging and examination under anaesthesia with biopsy. All information were recorded on tables.

Results

This is a five (5) year retrospective study of forty three (43) cases that qualified as unilateral sinonasal masses. Twenty eight (28) male and fifteen (15) female with m:f ratio of 2:1. Most common age group affected was 56-65 years whereas the least affected was 16-25.

Most common symptoms were rhinorrhoa and nasal obstruction (table 2), seen in almost all benign sinonasal masses.

Table 3 showed the common histological type of sinonasal masses (inflammatory polyp). This is followed by inverted papilloma. Squamous cell carcinoma presented as most common malignant unilateral sinonasal masses.

Table 1: Age/gender distribution

Age Group (years)	Male	Female	Total (%)
16-25	1	1	4.5
26-35	4	2	13.9
36-45	5	4	20.9
46-55	7	2	20.9
56-65	10	5	34.8
66-75	1	1	4.5
Total	28	15	43

Table 2: Symptoms at presentation

Symptoms	Non-neoplastic	Benign	Malignant	Total (%)
Rhinorrhoa	19	17	7	43
Nasal obstruction	19	16	8	43
Mass	19	14	8	41
Epistaxis	0	9	10	19
Diplopia	0	1	3	4
Proptosis	0	0	1	1
Cheek swelling	0	1	1	2

Table 3: Histological types of unilateral nasal masses

Turmour Type	Number of Patients
Non neoplastic (inflammatory polyp)	18 (42%)
Benign • Inverted Papilloma • Pleomorphic Adenoma • Angiofibroma • Cavernous Haemangioma	 11 (26%) 3 (7%) 1 (2.3%) 1 (2.3%)
Malignant Squamous cell carcinoma Rhabdomyosarcoma Lymphoma	 6 (14%) 1 (2.3%) 1 (2.3%)

Adenocarcinoma	1 (2.3%)

Table 4: Duration of Nasal mass

Duration(yrs)	Non-neoplastic	Benign	Malignant	Total
1-3	15	8	6	29
4-6	3	2	2	7
7-9	0	2	0	2
10-12	0	5	0	5
Total (100%)	18(41.8%)	17 (39.5%)	8(18.6%)	43

Discussion

Neoplastic and non-neoplastic lesions are common causes of unilateral sinonsal masses. Majority of patient in this study presented in the fifth decade (about 34.8%). This has been identified in various other studies [4,5].

The male/female ratio in our study was 2:1. In a study of Shuaibu et al, they had male/female ratio of 1:9:1[6]. Despite numerous presentation like nasal obstruction, epistaxis, hyposmia, rhinorrhoa, facial pain, anosmia, however nasal blockage and rhinorrhoa and nasal mass remain the most common presentations observed in our study [6,7]. These were observed in both neoplastic and non-neoplastic cases. Epistaxis presentations dominated in our study for neoplastic unilateral sinonasal masses [8]. Nair et al reported nasal obstruction as most common presentation in non-neoplastic cases [8,9].

In our study, epistaxis was noted to be common presentation in neoplastic unilateral masses. Pazsilva et al in their study, demonstrated that epistaxis was commonly associated with neoplastic unilateral sinonasal masses [9,10].

In our study, non-neoplastic cases constituted about 42%. Similar findings were also demonstrated by Kucur et al in their study [11]. While our study showed inflammatory polyp as most common non-neoplastic lesion, Kucur et al reported inflammatory polyp, chronic sinusitis and antrochoanal polyp as most common [11,12].

Inverted papilloma was the most common benign tumour in our study, though benign, but usually aggressive in its presentation. This tumour is notorious for recurrence after excision [13]. This was followed by Pleomorphic Adenoma. Others were Angiofibroma and Cavernous Haemangioma (2.3%).

In another study by Humayun et al, they reported inverted papilloma, meningioma followed by haemangioma as most common benign unilateral nasal masses.

In this study nine (9) patients had sinonasal malignant condition. Squamous Carcinoma (14%), Rhabdomyosarcorma (2.3%) lymphoma (2.3%), followed by Adenocarcinoma (2.3%).

However, in another study Belli et al, squamous carcinoma was reported as commonest, followed by adenocystic carcinoma was reported and B-cell non-Hodgkin lymphoma [15].

We observed that majority of our patients presented within 1-3 years of the onset of symptoms. Those with malignancy presented earlier [16]. It could be as a result of symptoms like epistaxis, facial pain which are more alarming to the

patients[17]. The benign unilateral lesion tend to present later, probably because grave symptoms are not experienced by the patient, like epistaxis [18].

Conclusion

Most common amongst benign unilateral sinonasal mass is inflammatory polyp, followed by inverted papilloma. Rhinorrhoa and nasal obstruction presented commonly in all patients. Patient with neo-plastic masses commonly presented with epistaxis. The outcome of benign lesion was better than in malignant cases. Any sinonasal mass associated with epistaxis should be suspicious of malignant lesion.

Consent

As per international standard or university standard, patient(s) written consent has been collected and preserved by the author(s).

Ethical Approval

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

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