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Nasopharyngeal Carcinoma: Managing Challenges in Jos, Plateau State, Nigeria

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Abstract
Introduction:NPC is an uncommon tumour the world over, but has a high prevalence rate in south-east Asia, some parts of the Middle East and North Africa. It has both racial and geographical variations. Common presenting symptoms include—Nasal, cervical, Otologic and Neurophthalmic. Patients presentation to health care facilities is usually late and thus with advanced disease. This study is set out to enumerate and highlight challenges with managing NPC in our centre.**Method**:A retrospective study, for a period of five years and is set out to look at challenges in managing NPC. Clinical and histological data of patients were reviewed. Patients with histologically confirmed NPC were included in the study and periods of symptoms before presentation, at presentation, first point of presentation, period between presentation and diagnosis, presenting symptom(s) and treatment modality were considered.**Results**:36 patients aged 11-80 years were reviewed with 24 males and 12 females, m:f (2:1). Major challenges seen were late presentation, long period between presentation and diagnosis, non- availability of treatment facilities in the tertiary health institutions, inability of the patients to afford and access treatment, thus resulting in poor compliance and outcome.**Conclusion**:Improved health care awareness is advocated for both health care providers and health care seekers regarding NPC. Adequate diagnostic tools and treatment facilities like radiotherapy should be available in all tertiary health centres to ensure improvement in survival rates.
Keywords: - Nasopharyngeal Carcinoma, managing, challenges.

Introduction

Nasopharyngeal carcinoma (NPC) is an uncommon tumour the world over[2,9]. However it is known to be common or has a high prevalence rate in the south-east Asia, some parts of the Middle East and North Africa (Tunisia)[1,2,5,9]. It is known to have both racial and geographic variations with the highest incidence rate of 20 - 50/ 100,000 – in southern China. If accounts for 18% of all malignant neoplasm in the Cantonese. In Nigeria the disease is equally rare with a prevalence of 4 per 100,000 as reported in some journals[7]. There is also a bimodal pattern of distribution with peak incidence in the adolescent age and another peak between the 5th and 6th decades[1, 5,6,9].

The common presenting symptoms of NPC are: - nasal obstruction, cervical lymphadenopathy, Otologic (conductive deafness) and cranial nerve palsies or neurophthalmic symptoms (Table 1). However early symptoms are usually that of epistaxis, nasal obstruction, nasal discharge which may occasionally be bloody and serous otitis media in form of conductive deafness[1,2,3,4,5,8,9].

Presentation by patients to health care facilities is usually late and thus with advanced disease (Table 3). Curative surgical treatment is usually not achievable due to the anatomical location and thus difficulty in resection but it is known to be highly radiosensitive, thus patients usually benefit from radiotherapy especially in the early stages.

This study is aimed at enumerating and highlighting the challenging factors as regards the management of nasopharyngeal carcinoma in our center.

Method

This is a retrospective study carried out in our department covering a period of 5years (i.e. from June 2008 – June 2013). The study is set to look at the challenges in managing NPC in our centre – the clinical and histological data of the patients were reviewed. The patients with histologically confirmed NPC were included in this study. Within the period of study, 36 patients with histologically confirmed NPC were considered. Their clinical profiles were considered- including the presenting symptom(s), duration of illness before presentation, specialty at first presentation, duration or time between presentation and diagnosis, type of treatment offered and availability of the treatment modality and where. Compliance with the treatment offered and outcome were all considered (Tables 1,3,4).

Results

Thirty six histologically confirmed NPC were seen during the period of this study. Of the 36 patients, 24(66.7%) were males and 12(33.3%) females giving a male to female ratio of 2:1. The age range of the patients is from 11-80yrs (Table 2).

None of the patients presented within the first month of symptoms, 6 patients (16.7%) presented within

2-6 months of symptoms, 12 patients (33.3%) within 7-12 months, 10 patients (27.8%) within 2-3yrs, and 8 patients (22.2%) within 4-5yrs and all cases presented first to either a General Practitioner or General Surgeon (Table 3). None of the patients was referred within the first 4 weeks of presentation, ten patients (27.8%) were referred within 2-6 months of presentation, while twenty patients (55.6%) were referred within 7-12 months and six patients (16.7%) within 2-3yrs in this study, all diagnosis were made by the ENT surgeons (Table 3).

The presenting symptoms include (Table 1)

Cervical presentation	-	32(88.89%)
Nasal presentation	-	22(61.11%)
Otologic presentation	-	20(52.63%)
Neurophthalmic	-	6(16.67%)

The treatment modality offered to all patients is radiotherapy/chemo-radiation – which is not in our centre- thus patients were referred for it in centres as far as 300-900 km away from our centre.

Only two patients reported back to our centre after completion of radio therapy, the remaining were lost to follow – up {i.e. either did not go for radiotherapy at all or did not complete it} (Table 4).

Discussion

Nasopharyngeal carcinoma is known to be generally uncommon in our environment and the country as a whole. However; it has been noted to be on the increase in several parts of the country with various cases reported in literature e.g. in Ile-Ife, Ibadan, Enugu, Ilorin, Jos[1, 2,3,4,5]. This study is aimed at enumerating the challenges in managing the disease in our centre.

The study showed and agreed with other studies in literature of a male: female of 2:1[7], a kind of Plateau in the fifth decade of life; highest presentation as cervical, followed by nasal presentation. The study population ranges from 11-80yrs and it is noted that the attitude of patients to health care is poor with the resultant late presentation to health facilities. The nasopharynx is a hidden area and thus makes problems in that area not to be presented early[2]. All the patients in this study presented late as symptoms recorded are those of late presentation or advanced disease. On presentation, the patients reported to either the General Practitioner or the General Surgeon and thus diagnosis could not be made immediately.

None of the patients was referred to the ENT surgeon within 4wks of presentation in hospital; ten of the patients were referred to ENT between 2-6 months, twenty patients referred between 7-12 months while the remaining six were referred between 2-3yrs after presentation to hospital (Table 3). All the above periods were due to the fact that the first point of presentation usually keeps the patients for unduly long periods for reasons ranging from lack of high index of suspicion of the origin of the disease or paucity of knowledge of the disease by the initial contact physician. When the patient is finally referred to the ENT surgeon, evaluation before diagnosis may take some times depending on various reasons especially financial as there is no concrete health insurance policy.

All the patients in this study were referred for radiotherapy as a treatment modality (Table 4). Radiotherapy facility is not present in our centre, thus these patients are to go to centers with this facility. These centers are far from our centre, with a distance of between 300-900 kilometers - thus many of them were unable to benefit from this treatment, as it entails travelling with relatives and staying away from home for many weeks or months.

From this study, only two out of the thirty six patients underwent this treatment and returned with minimal benefit due to late presentation or advanced disease.

Public health awareness is poor in our environment thus the late presentation even when the patient presents early, the health provider usually is not easily dispose to the suspicion of a serious condition like NPC thus delays the referral of the patient to the secondary health facility and then to the tertiary health facility for early review, diagnosis and treatment. Lack of adequate treatment modality like radiotherapy in the tertiary centre like ours, poses another problem as most of the patients in this study could not affo0rd to access the treatment.

Conclusion

Thou survival rate for NPC is low and the fact that the disease condition is on the increase in our environment, public health awareness is advocated to ensure health – seeking behavior of our communities is improved. The primary health providers need to have adequate knowledge as regards disease presentation to ensure high index of suspicion and thus early referral for early diagnosis and treatment.

In the tertiary centers like ours, there should be the availability of adequate diagnostic tools and treatment facilities like radiotherapy so that after diagnosis patients are not referred to distant centers for treatment.

There should be government involvement in the management of NPC and any other malignancy in terms of health insurance or subsidy, so that the poor in the community who are mostly affected will benefit.

(Table 1) Symptoms at Presentation

No	Symptoms	Number	Percentage
1	Cervical lymphadenopathy[mass(es)]	32	88.89%
2	Nasal (epistaxis, blockage)	22	61.11%
3	Otological (otalgia, deafness)	20	52.63%
4	Neurophthalmic (palcies, poor vision)	6	16.67%

(Table 2) Study Population's Clinical Characteristic and Demography

Age sp	Male	Female	Total
11-20	3(8.3%)	2(5.6%)	5(13.9%)
21-30	4(11.1%)	1(2.8%)	5(13.9%)
31-40	2(5.6%)	4(11.1%)	6(16.7%)
41-50	6(16.7%)	2(5.6%)	8(22.2%)
51-60	4(11.1%)	0	4(11.1%)
61-70	3(8.3%)	2(5.6%)	5(13.9%)
71-80	2(5.6%)	1(2.8%)	3(8.3%)

(Table 3) PERIOD BETWEEN PRESENTATION/DIAGNOSIS

Time	Duration at Presentation	First point of presentation	Duration before referral to ENT	Diagnosis	Treatment
1-4 weeks	0		0		
2-6 months	6	GP/ G Surgeon	10	NPC	Referred For Radiotherapy
7-12 month	12	GP/ G Surgeon	20	NPC	,,
2-3 years	10	GP/ G Surgeon	6	NPC	,,
4-5years	8	GP/ G Surgeon	0	NPC	,,

(Table 4) Treatment Modality and Follow Up

Chemo- radiation	All referred for radiotherapy
Surgery	None
Had treatment	Only two completed radiotherapy and came back
Lost to follow up/? Did not go for treatment	Remaining lost to follow up

Competing interest:
The Authors declare that they do not have any competing interest.

Contributions:
NLT collected the data, analyzed the data, carried out literature search and prepared the manuscript. AAA also collected data and reviewed the write-up.

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