

# Nasopharyngeal Carcinoma in South of Iraq: A Retrospective Study

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## Abstract

Nasopharyngeal carcinoma (NPC) is one of the most common head and neck tumor. In 2018, more than 120 thousand new cases of NPC reported. The main objective of this study was to identified NPC in south of Iraq and determined the risky factors of it. The pathology files derived from Al-Shifaa Oncology Center and Al-Sadder Teaching Hospital, affiliated to Misan Health Director, Ministry of Health and Environment, Misan, Iraq, served as the source of the materials for this study. All cases diagnosed with NPC were included in the study. The recorded data included the patient's age, gender, address, disease stages, histopathology, and tobacco smoking. The mean±SD of age was 40±13.98 years. Misan and Nasiriya high percent of NPC. Males were 3 folds affected than females. Eleven patients presented with stage II disease, followed by stage III in six cases. The undifferentiated NPC was frequently recorded in 50% of patients. 13 (65%) of patients were tobacco smoking. NPC was more often in middle age group. Misan and Nasiriya provinces have high incidence than Basrah and Wasit provinces. Male to female ratio of NPC is 3:1. In Iraq, the stage II represented the commonest stage with undifferentiated histopathology is the dominant one.

**Keywords:** Head and neck cancer; Nasopharyngeal carcinoma; Misan; Retrospective study; Iraq

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## Introduction

Nasopharyngeal carcinoma (NPC) is the most common head and neck tumor in people from southern China and Southeast Asia, especially Malaysia [1,2]. In Singapore it is the second most common tumor [3]. Its incidence is 87% in China, 10% in Malaysia, 3% in European [2,3]. In Hong Kong NPC forms the third commonest malignant tumor in men and sixth commonest tumor in women [4]. This finding suggests that genetic and environmental factors contribute to the cause of the disease [5]. Patients with NPC commonly present at an advanced stage lead to poor prognosis due to delay in seeking medical advice, and confusing nature of the presenting symptoms [6,7-11]. A study in Gungxi medical university (south of china) in 2008 reported that smoking may play a role by activating the Epstein-Barr virus replication which is the strongest etiological risk factor in NPC [12].

## Materials and Methods

This is a retrospective study, was conducted in Al-Shifaa oncology center and al-Sadder teaching hospital for a period of 8 months from by performed using the pathology files of patients, with legal permission. In which 20 patients documented with NPC from different southern

cities. History and investigation results documented are focusing on the following: age, address, gender, stage of the disease, histopathology, and tobacco smoking.

## Results

Twenty patients were included in this study. The mean±SD of age was 40±13.98 years. Misan and Nasiriya high percent of NPC. Males were 3 folds affected than females (Table 1).

Eleven patients presented with stage II disease, followed by stage III in six cases. The undifferentiated NPC was frequently recorded in 50% of patients. Of 20 patients, 13 (65%) patients were tobacco smoking (Table 2).

## Discussion

NPC continues to be of concern to clinical oncologist due to non-specificity of symptoms often delays the diagnosis and therapy decrease the opportunities for curative treatment [12]. In our study we found that disease is observed mal-frequently among patients more than 40 years which is the commonest mode of presentation in south of Asia, it is by model presentation of age start to rise in the second decade and peaks at the fourth decade then reach to plateau level and declines [5,7,10].



**Table 1:** Distribution according to Age, Address and gender.

Variable		Number	Percentage
Age	20-Oct	1	5%
	21-40	6	30%
	41-60	8	40%
	>60	5	25%
95% Confidence Interval = 0.31-9.68			
Address	Misan	9	45%
	Nasiriyah	7	35%
	Basrah	2	10%
	Wasit	2	10%
95% Confidence Interval = -0.66-10.63			
Sex	Male	15	75%
	Female	5	25%
95% Confidence Interval = -5.35-7.33			

**Table 2:** Distribution of cases according to stage, histopathology and smoking.

Variable		Number	Percentage
Stages	Stage I	2	10%
	Stage II	11	55%
	Stage III	6	30%
	Stage IV	1	5%
95% Confidence Interval = -2.23-12.33			
Histopathology	Undifferentiated NPC	10	50%
	Invasive well Differentiated NPC	7	35%
	Poorly differentiated NPC	3	15%
95% Confidence Interval = -2.05-15.39			
Smoking	Smokers	13	65%
	Non-smokers	7	35%
95% Confidence Interval = -28.11-4.81			

We have found that Misan and Nasiriyah have the greatest percentages with a male to female ratio 3:1 which is confirmed to the most of worldwide studies [3,4,7, 11].

In southern of china where NPC nearly all cases are of undifferentiated type, in USA where NPC is rare about one of five keratinizing type [5], in our study we found that most cases are undifferentiated. The stages II were considered the commonest one, about 55% of patients. The 5-year survival rate in this stage is about 64% [12].

Smoking considered as strong etiological factor for head and neck

tumor especially laryngeal and nasopharynx tumor in many studies as showed that risk is reached it is peak level with increased duration and exposure to tobacco, in addition our study strongly reported that 65% of cases effected were smokers.

## Conclusion

NPC was more often in 20-60 years age group than other groups. Misan and Nasiriyah provinces have high incidence than Basrah and Wasit provinces of NPC cases. Male to female ratio of NPC is 3:1. In Iraq, the stage II represented the commonest stage of sample. Undifferentiated histopathology is the dominant one. Tobacco smoking is major risk factor in our country.

## References

1. Brown LM, McCarron P, Freedman DM (2006) New malignancies following cancer of the buccal cavity and pharynx. In: *New Malignancies Among Cancer Survivors: SEER Cancer Registries, 1973-2000*. National Cancer Institute, United States.
2. Chan AT (2010) Nasopharyngeal carcinoma. *Ann Oncol* 21: vii308- vii312.
3. Chang ET, Adami HO (2006) The enigmatic epidemiology of nasopharyngeal carcinoma. *Cancer Epidemiol Biomarkers Prev* 15: 1765-1777.
4. National Cancer Institute (2014) *SEER Cancer Statistics Review, 1975-2011*, United States.
5. Hui EP, Ma BB, Leung SF, King AD, Mo F, et al. (2009) Randomized phase II trial of concurrent cisplatin-radiotherapy with or without neoadjuvant docetaxel and cisplatin in advanced nasopharyngeal carcinoma. *J Clin Oncol* 27: 242-249.
6. Langendijk JA, Leemans CR, Buter J, Berkhof J, Slotman BJ (2004) The additional value of chemotherapy to radiotherapy in locally advanced nasopharyngeal carcinoma: A meta-analysis of the published literature. *J Clin Oncol* 22: 4604-4612.
7. Mendenhall WM, Werning JW, Pfister DG (2011) *Treatment of head and neck cancer*. In: *Principles and Practice of Oncology*. (9<sup>th</sup> edtn), Lippincott Williams & Wilkins, Pennsylvania, United States.
8. Mertens R, Granzen B, Lassay L, Bucsky P, Hundgen M, et al. (2005) Treatment of nasopharyngeal carcinoma in children and adolescents: definitive results of a multicenter study (NPC-91-GPOH). *Cancer* 104: 1083-1089.
9. National Cancer Institute (2014) *Nasopharyngeal Cancer Treatment (Adult) (PDQ<sup>®</sup>)*, United States.
10. Niederhuber JE, Armitage JO, Doroshow JH, Kastan MB, Tepper JE (2014) *Abeloff's Clinical Oncology*. (5<sup>th</sup> edtn), Elsevier, United States.
11. Straathof KC, Bollard CM, Popat U, Huls MH, Lopez T, et al. (2005) Treatment of nasopharyngeal carcinoma with Epstein-Barr virus-specific T lymphocytes. *Blood* 105: 1898-1904.
12. Wei WI, Sham JST (2005) Nasopharyngeal carcinoma. *Lancet* 365: 2041-2054.