

Pattern of Otorhinolaryngological Diseases at Rural Medical Camps in Far Western Region of Nepal.

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ABSTRACT

Introduction: Nepal army has been organizing free medical camp in various parts of Nepal since many years. The free medical camp is committed to improve global health care in rural parts of Nepal. This study was conducted to describe the demographic and ENT-HNS diseases among the patients attending medical camps in two rural parts of far western region of Nepal (Humla-Simikot and Muggu- Talcha) . **Methods:** Retrospective studies of all the patients attending ENT-HNS clinic of Simikot and Talcha medical camp from October 12th to October 16th 2011 were evaluated. Each patient was assessed by consultant ENT-Head and Neck surgeon. Only adult age group patient were included in the study. The disease was divided into four group i.e otology (ear disease), rhinology (nose disease), head and neck (throat disease) and normal finding groups. **Results:** Total numbers of 213 patients were analyzed in Simikot and 167 patients in Talcha. Among them otology group were 80 patients (37.5%), rhinology 57patients (26.7%), head and neck 55patients (25.82%) and 21 patients (9.85%) had normal findings in Simikot. Similarly in Talcha the patients were 84(50.29%) in otology, 22(13.17%) in rhinology, 49(29.34%) in head and neck and 12 (7.1%) with normal findings respectively. **Conclusions:** Chronic otitis media (CSOM) is the most common ENT problems in both the rural areas. One of the major causes of hearing loss is CSOM so improvement of socioeconomic status and health care facilities will also be helpful in reducing the prevalence of CSOM.

Keywords: Chronic otitis media, Otology, Rhinology

INTRODUCTION

Health is vital for overall development of a human and determines his/her ability to acquire knowledge and skill. ENT (Ear, Nose, and Throat) disorders may affect this ability adversely and are common cause of consultation to general practitioners^{1,2}. The provision of medical facilities to rural areas is a major objective of development in Nepal but the health care system in rural areas of our country has been confronted with problems of inequity, scarcity of resources, inefficient and untrained human resources, gender insensitivity and structural mismanagement³. Poverty, lack of knowledge is the major cause of not attending the medical facilities. Thus, Nepalese army organized these free health camps so that the target populations get benefited.

Chronic suppurative otitis media (CSOM) is one of the most

common ear diseases in many of the developing countries including Nepal⁴. It is the most common cause of persistent mild to moderate hearing impairment in children and young adults⁵. During the recent decades, the incidence of chronic suppurative otitis media has dramatically declined due to improvements in housing, hygiene and antimicrobial chemotherapy⁶. According to World Health Organization, 42 million people (age > 3 years) have hearing loss. The data on otorhinolaryngology from various Nepalese populations are insufficient. A proper understanding of the magnitude of ENT diseases and the factors associated with their occurrence in the community is important to enable formulation of health care services aimed at early detection and treatment of morbidities. The Present study was undertaken to determine the prevalence of ENT disorders in rural population in far western region of Nepal.

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METHODS

This was a retrospective study. All the data were collected from the medical camp organized by Nepalese army in two rural parts of far western region of Nepal –Humla (Simikot) for three days and Muggu (Talcha) for two days from October 12th to October 16th 2011. All the patients who presented to these two camps within the total period of five days were thoroughly evaluated by the same ENT-HNS surgeon. A diagnosis was made by careful history taking and clinical examination. Patient with pediatric age group were excluded from the study as those patients were evaluated by pediatrician. On the basis of clinical presentation and examination, provisional diagnosis was made. Details were recorded and data was analyzed statistically using frequency and percentage.

RESULTS

ENT diseases in our study population were found to be more common among male (59.62%) in Simikot whereas in Talcha it was female who outnumbered (52.10%). Majority of the patients belonged to age group 21-30 years (32.39%) in Simikot and less than 20 years (28.14%) in Talcha with mean age 25 years in both areas (Table 1).

Table 1. Demographic Data

Sex distribution	Simikot	Talcha
Male	127(59.62%)	80(47.90%)
female	86(40.37%)	87(52.10%)
Total	213	167
Age Distribution (years)	Simikot	Talcha
< 20	59(27.70%)	47(28.14%)
21-30	69(32.39%)	40(23.95%)
31-40	40(18.78%)	31(18.56%)
41-50	19(8.92%)	21(12.57%)
51-60	15(7.04%)	20(11.98%)
61-70	10(4.69%)	5(2.99%)
71-80	1(0.47%)	1(0.60%)
81-90	-	2(1.20%)
>90	-	-

Diseases of auditory system (37.55%) were the most common group of ENT problems among the Simikot population as well as in Talcha (50.29%) followed by nasal disorders (26.76%) in Simikot but in Talcha it was head and neck disorder (29.34%) (Table 2).

The overall prevalence of chronic suppurative otitis media in Simikot was 35% (n=28/80) and in Talcha was

45.23% (n=38/84) making it the most common otological problem. Wax (20%, n=16/80) was the second most common ear morbid condition in Simikot and it was wax and presbycusis (16.66%, n=14/84) each in Talcha.

Table 2. Pathological distribution

Pathology	Simikot	Talcha
Otology	80(37.55%)	84(50.29%)
Rhinology	57(26.76%)	22(13.175)
Head and Neck	55(25.82%)	49((29.34%)
Normal findings	21(9.85%)	12(7.18%)
Total	213	167

Other disorders of the otological group included tinnitus, Eustachian tube dysfunction, congenital hearing loss, Otitis media with effusion, foreign body ear (Table 3).

Among problems associated with nose, Deviated nasal septum (DNS) (42.10%, n=25/57) was most common complaint in Simikot whereas DNS and Epistaxis (45.45%, n=10/22) were outnumbered in Talcha (18.5%) Other conditions of nose like tumours, sinusitis, Inferior turbinate hypertrophy (ITH), atrophic rhinitis, chronic rhinosinusitis (CRS), AC Polyp was seen.

Gastro esophageal disease (GERD) was troubling 52.72% (n=29/55) of our Simikot population and 73.46% (n=36/49) in Talcha. Other morbid conditions included acute tonsillitis, multinodular goiter (MNG), allergic pharyngitis, acute laryngitis, cervical lymphadenopathy.

Besides, few patients had non relevant ear, nose and throat complains and on examination were clinically normal

DISCUSSION

The neglecting of rural healthcare system is largely due to lack of doctors in the rural sector. Major problems being faced by this rural health sector are inadequate primary health care, high inadequacy of funding and trained manpower. A study done by Kishve, Sanjay P diseases of auditory system (57.3%) were the most common group of ENT problems among the Indian population with otitis media (18.25%) being the commonest ear, nose throat disorders as similar to ours⁷. Otitis media is the most common morbid condition of the ear and a leading cause of hearing loss. The high prevalence of otitis media in our study corresponds to the results obtained elsewhere in similar study. Prakash Adhikari in a study conducted among 2000 children aged between 5 and 13 years in Nepal found wax followed by chronic suppurative otitis media and otitis media with effusion as the most common

Table 3. Otology (Ear Disorders)

Camp	CSOM-AA	CSOM-TT	Tinnitus	Wax	Presbycusis	ET dysf	OME	Cong.H.L	F/B EAC	Total
Simikot	2(2.5%)	26(32.5%)	8(10%)	16(20%)	8(10%)	12(15%)	5(6.25%)	2(2.5%)	1(1.25%)	80(37.55%)
Talcha	6(7.14%)	32(38.09%)	6(7.14%)	14(16.66%)	14(16.66%)	8(9.52%)	3(3.57%)	(1.1%)	0	84(50.29%)

Table 4. Rhionolgy (Nose Disorders)

Camp	DNS	Epistaxis	Vestibulitis	Ca nose & PNS	ITH	Atrophic rhinitis	CRS	AC polyp	Total
Simikot	24(42.10%)	16(28.07%)	2(3.5%)	1(1.75%)	9(15.7%)	1(1.75%)	2(3.5%)	1(1.75%)	57(26.76%)
Talcha	10(45.45%)	10(45.45%)	1(4.54%)	1(4.54%)	0	0	0	0	22(13.17%)

Table 5. Head and Neck (Throat Disorders)

Camp	GERD	Ac.Tonsillitis	MNG	Allergic Pharyngitis	Cervical-lymph adenopathy	Ac.Laryngitis	Parotitis	Total
Simikot	29(52.72%)	8(14.54%)	0	9(16.36%)	6(10.90%)	2(3.63%)	1(1.8%)	55(25.8%)
Talcha	36(73.46%)	5(10.20%)	3(6.12%)	3(6.12%)	1(2.04%)	1(2.04%)	0	49(29.34%)

ear diseases in rural population⁸. J Hatcher et al also found chronic suppurative otitis media, wax and hearing loss among major form of ear diseases⁹. Annie Jacob in a study from rural population of south India diagnosed otitis media in 17.6% of children.¹⁰ Otitis media as a result of infection has been more common among rural population as against urban population¹¹. More than the family type, it is the overcrowding which acts as a risk factor for ENT problem. Epistaxis is a common disorder that is usually due to local irritation in Kiesselbach's plexus. The most common disorders underlying epistaxis are local inflammatory diseases, infections, and digital trauma¹². Most often the bleed is self limiting, however they may be recurrent. Gastro oesophageal reflux disease were most common among throat disorder in both Simikot (52.72%) and also in Talcha (73.46%) areas in our study. Similar study done by Rokonzuzaman SM et al also concluded 87.73% individuals in rural population had GERD¹³.

The prevalence of the various morbidities could be much higher in the general population, as many do not come to get medical help due to various socioeconomic barriers and also we had very limited time period for the camps.

The present study may be the only study done in the western region as no other similar studies were found.

CONCLUSIONS

This study suggests that otitis media, deviated nasal septum, epistaxis and gastro oesophageal diseases are the most common ENT problems. Since, it is mostly the general

practitioners who manage these cases; it is important that they are well verse with their diagnosis and treatment.

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