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An Overview of Patients with ENT Disorders at Shalakya Outpatient Department, Ayurveda Teaching Hospital, Institute of Medicine, Tribhuvan University, Kirtipur

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ABSTRACT

Background: Ear, Nose, and Throat (ENT) diseases pose a significant public health challenge, affecting a large number of patients worldwide. The study was conducted to assess the prevalence of ear, nose, and throat (ENT) disorders among patients visiting at Shalakya Outpatient Department of Ayurveda hospital Kirtipur.

Materials & Methods: It was an analytical retrospective study OPD data record of Shalakya Department in the fiscal year 2081-82 BS. Main focus was outpatient department and Ayurveda therapeutic treatment of Shalakya department in ENT diseases diagnosed patients only. All the patients who came with ENT problem were enrolled in the record of Shalakya OPD data of one year from 2081 Baishak- 2082 Baishak and those data were taken for the study.

Results and Discussion: The majority of the patients 47.5% were from 21-40 year age group and mean age is 39.0 years. More patient visited to OPD were from Kathmandu 34.3%. The maximum number of 50.9% that is more than half of patient had case of nose problem, 25.0% of cases were related to ear diseases, while 14.4 % of cases were related to throat problems. The majority of the patients who presented with nose problem 159 (27.7%) were suffering from allergic rhinitis followed by rhinosinusitis 74 (12.9%). Most common ear problem was tinnitus 54 (9.4%) followed by otalgia and chronic suppurative otitis media both 4.2%. Ayurveda therapeutic applied to cure ENT diseases in Ayurveda Teaching Hospital like Nasya was advice in the maximum patients 63.3%, followed by Karnapuran in 19.9%.

Conclusion: Total patient visited to Shalakya OPD were 573 and total diseases diagnosed was 623 because multiple diseases were found in single patients. Most common disease was Allergic rhinitis because Kathmandu is the most polluted city in Nepal so maximum people suffer by allergic Rhinitis.

Keywords: Shalakya, ENT Problem, Ayurveda, Therapeutic, Procedure

INTRODUCTION

Kirtipur (derived from 'kirti,' meaning 'glory,' and 'pur,' meaning 'city') is a municipality located in the capital valley of Nepal, renowned as one of the country's ancient settlements. Geographically, it lies to the southeast of the capital city.¹ It is a peaceful area and free from pollution, it is quite far from the polluted area Kathmandu city. The Tribhuvan University Ayurveda Teaching Hospital in Kirtipur offers outpatient (OPD) and inpatient (IPD) services, in addition to specialized Ayurveda treatments.² Ayurveda, a traditional Indian system of medicine, forms the core therapeutic framework of the hospital. As a well-established system of traditional healthcare, Ayurvedic medicine encompasses both preventive and curative

practices and remains widely utilized across various regions of Asia. Ayurveda is an ancient medical system with historical roots dating back approximately 3,000 years in India.³ For over two millennia, it has been practiced extensively across South Asia as a traditional healthcare system.⁴

According to the World Health Organization, approximately 80% of the population in developing countries depends on traditional medicine—predominantly plant-based remedies—for primary health care needs.⁵ By WHO, 2002 it is declared that In Nepal, Ayurveda has served as a recognized national medical system for over a century.⁶ Ayurveda, an indigenous system of medicine, is deeply entrenched in the sociocultural traditions of South Asia. Ayurveda operates within a holistic framework that integrates physical, mental, and spiritual well-being, reflecting broader societal and cosmological principles. This cultural embeddedness has enabled its persistence as a vital healthcare modality, even in the face of modernization and globalization.

Ayurveda employs a holistic therapeutic approach that restores health primarily by rebalancing the doshas (body's humoral equilibrium). This is achieved through the strategic use of natural resources, including medicinal plants, animal-derived substances, and processed metals. Crucially, Ayurvedic practice conceptualizes health as an interconnected system, explicitly linking physiological well-being to dietary habits, daily routines, social context, psychological state, and environmental factors.

The number of Ayurveda hospitals in Nepal has been steadily increasing, with approximately a dozen currently operational across various regions. Among these, the Ayurveda Teaching Hospital provides specialized healthcare services through its multiple departments such as Kaya Chikitsa, Shalya Chikitsa, Shalakya Chikitsa, Panchakarma Chikitsa, Swasthavritta Chikitsa, Striprasuti Chikitsa and Balaroga Chikitsa. Among the eight branches of Ayurveda, the specialty dealing with the diseases of the supra-clavicular region is Shalakya Tantra.⁷ Shalakya Tantra is one of the eight principal branches of Ayurveda, as outlined in classical Ayurvedic texts. This specialty focuses on the diagnosis and treatment of disorders affecting anatomical structures located above the clavicle, including the ears, eyes, nose, mouth, throat, and head.⁸

During the fiscal year 2081-2082, number of patients with ENT disorder were treated like Rhinitis, Sinusitis, DNS, Allergic rhinitis, Tinnitus, Deafness, ASOM, Ear wax impact, Tonsilitis, Pharyngitis, Epistaxis, Headache, Migraine, Otalgia, Dysphonia etc. Inspite of all the facilities in the Shalakya Department, the number of patient flow was very less, and specific ENT diseases related to Shalakya was managed during the year. Patients received cost-effective and safe Ayurvedic interventions from the Shalakya Tantra Department, which included oral herbal medications as well as specialized therapeutic procedures such as Nasya (nasal administration of medicated oils), Karna Puran (ear oleation), Kavala (oil pulling), Gandusha (medicated mouth gargling), and Dhumapana (herbal smoke inhalation). These treatments

demonstrated efficacy in reducing recovery time for both acute and chronic ENT-related conditions. The present study was conducted to assess the prevalence of ear, nose, and throat (ENT) disorders among patients visiting an Ayurveda hospital.

MATERIALS AND METHODS

It was an analytical retrospective study, OPD data record of Shalakya Department in the fiscal year 2081-82 BS was analyzed. This study was conducted at Shalakya OPD of TU, Ayurveda Teaching Hospital, Kirtipur. The Main focus was outpatient department and Ayurveda therapeutic treatment of Shalakya department in ENT diseases diagnosed patients only. All the patients of any age who came with ENT problem were enrolled in the record of Shalakya OPD data of one year from 2081 Baishak- 2082 Baishak and those data were taken for the study.

The information included demographic data like age, sex; address and problem related of ENT disease diagnoses like Allergic Rhinitis, Rhinosinusitis, DNS (Deviated nasal septum), Atropic rhinitis, Nasal polyp, Pharyngitis, Tonsilitis, Stomatitis, Headache, Migraine, Tinnitus, Deafness, Otomycosis, Otalgia, Chronic suppurative otitis media, and Ear wax included in study. Similarly some Ayurveda therapeutic treatment applied to cure the ENT diseases like Nasya (nasal intalation of oil), Karna puran (pouring medicated oil in ear), Dhumapana (inhalation of medicated smoke), Nasal Packing, Kawala (gargling), Shirodhara (pouring medicated oil in forehead for some duration) were also included study.

Those data obtained from the record was entered in SPSS version 21 to analyze the result. The collected data were analyzed and interpreted by using the SPSS (Statistical Package for the Social Sciences) 21 versions. Analysis and interpretation of the data has been organized in the following two ways (frequency and percent), mean was calculated. Data was presented in the tables, figures and chart.

RESULT

Total number of the patients of ENT diseases who visited to Shalakya OPD of Ayurveda Teaching Hospital in fiscal year from 2081 Baishak to 2082 Baishak was 573. Total diseases diagnosis was 623 in 573 patients because multiple diseases were found in single patients. Among 573 patients who visited to Shalakya OPD with ENT diseases, 281 patients had received Ayurveda therapeutic treatment, as well as oral herbal medicine intake and remaining 292 patients with ENT diseases received oral herbal medicine intake only. It was noticed that more than one therapeutic treatment was applied in single patient of ENT diseases diagnosed. So the total therapeutic treatment applied to ENT diseases diagnosed patient was 303 in the fiscal year to 2081 to 2082.

Table 1: Age group and gender information of the patients (n=573)

S.N.	Variables	Frequency	Percentage (%)
1	Age (Year)		
	1-20	60	10.5
	21-40	272	47.5
	41-60	179	31.2
	61-80	61	10.6
	81-90	1	0.2
2	Gender		
	Male	337	58.8
	Female	236	41.2

Table 1 shows that the majority of the patients 47.5% belonged to 21–40-year group suffered from ENT diseases and 41 -60 age group were 31.2%, similarly 1–20-year age group suffered from ENT diseases were 10.5%- and 61-80-year age group were 10.6%. More male 58.8% were suffering from ENT diseases than female 41.2%. The mean age is 39.0 years with minimum 1year and maximum of 90 years.

Table 2: Pattern of diseases presenting in ENT OPD of the Ayurveda Teaching Hospital

Category	Diseases	Percentage (n= 573)
Ear Diseases	Tinnitus	54 (9.4%)
	Deafness	8 (1.4%)
	Otalgia	24 (4.2%)
	Otomycosis	21 (3.7%)
	Chronic suppurative otitis media	24 (4.2%)
	Ear wax	15 (2.6%)
	Meniere's	10 (1.7%)
Nose Diseases	Allergic rhinitis	159 (27.7%)
	Rhinosinusitis	74 (12.9%)
	DNS	41 (7.2%)
	Atrophic Rhinitis	24 (4.2%)
	Nasal Polyp	19 (3.3%)
Throat Disease	Pharyngitis	28 (4.9%)
	Tonsillitis	39 (6.8%)
	Stomatitis	14 (2.4%)
	Dry cough	9 (1.6%)
Head Disease	Headache without migraine	46 (8.0%)
	Headache with migraine	14 (2.4%)

Table 2 shows that out of 573 patients who visited ENT OPD of Ayurveda Teaching Hospital, the majority of the patients came with nose problem among them 27.7% were suffering from allergic rhinitis followed by rhinosinusitis 12.9%, deviated nasal septum 7.2%, atrophic rhinitis 4.2% and nasal polyp 3.3%. Most common ear problem was tinnitus 9.4% followed by otalgia and chronic suppurative otitis media both 4.2%, otomycosis 3.7%, ear wax 2.6%, other like Deafness and Meniere's disease seen in very few patients 1.4% and 1.7% respectively. Similarly in throat problem the majority of patients were suffering from tonsillitis 6.8% followed by pharyngitis 4.9%, stomatitis 2.4% and dry cough 1.6%. Headache patient visited to ENT OPD was 60 among them headache without migraine was seen in 8.0% and headache

with migraine seen in 2.4% of patients.

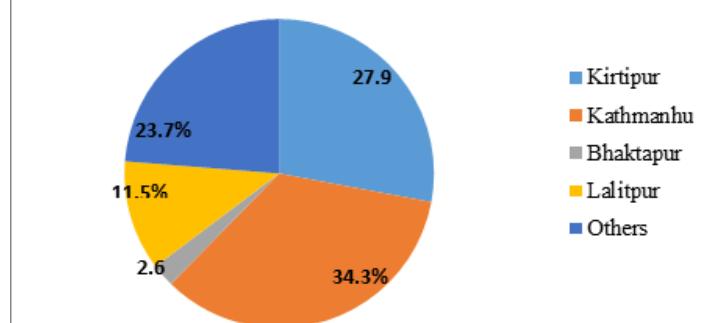
**Fig 1: Geographical distribution of patients visiting the hospital**

Figure 1 show that the majority of the patients visited to Ayurveda Teaching hospital with ENT diseases were 34.3% from Kathmandu and 27.9% from Kirtipur and minority of the patient were from Lalitpur(11.5%) and only 2.6% were from Bhaktapur and 23.7% were from out of valley.

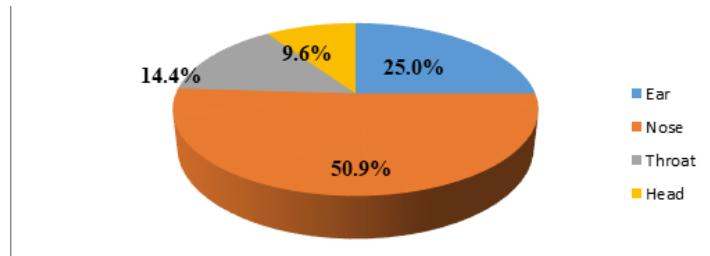
**Fig 2: Category of ear, nose, throat and head diseases among total diseases (n= 623)**

Figure 2 shows that maximum number (50.9%), that is more than half of patient had case of nose problem, 25.0% of cases were related to ear diseases, while 14.4 % of cases were related to throat problems and only 9.6 % of cases were related to head problem. It was noted that many patients had multiple diseases.

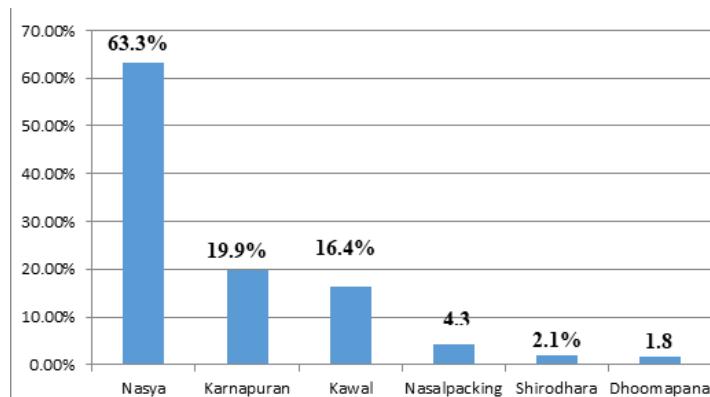
**Fig 3: Ayurveda Therapeutic Treatment applied to ENT Patients (n= 281)**

Figure 3 shows that Ayurveda therapeutic applied to cure ENT diseases in Ayurveda Hospital were like nasya was advised in the maximum patients 63.3%, followed by karnapuran in 19.9%, kawal in 16.4%, nasal packing was done in 4.3% and very few

patients was advice for shirodhara 2.1% and dhoomapana in 1.8% of patients. The total of 281 patients were referred for Ayurveda therapeutic to cure ENT related diseases and it was noted that more than one therapy was applied to single patient to cure ENT related diseases. So total Ayurveda therapeutic applied in patient of ENT related diseases was 303.

DISCUSSION

This study was carried out to find the frequency of different ENT diseases in those patients who attended outpatient department of Shalakya in Ayurveda Teaching Hospital of Kirtipur. The age group of 21- 40 year suffered from ENT diseases was maximum (47.5%) followed by age group of 41- 60 year (31.2%) and age group of 1- 20 year and 61- 80 year were less suffered by ENT diseases was 10.5%. However, study by Khan, T.H., et al 2024 show that the age and group specific patterns of ENT problems differ considering among communities.⁹ This study showed more males (58.8%) suffered from ENT diseases compared to females (41.2%). The male to female ratio was 1.5:1, which is similar to the research finding of R. Nepali, B. Sigdel 2012 where male patient related to ENT problem were more than female patient suffered by ENT problems.¹⁰ The study showed that maximum 34.3% of patient visited to Ayurveda Hospital of Kirtipur with ENT problem were from Kathmandu followed by 27.9 % from Kirtipur. Minority of the patient were 11.5% were from Lalitpur and only 2.6% were from Bhaktapur and 23.7% were from out of valley. This show that even Ayurveda Teaching Hospital is located in Kirtipur valley but more patient visited to Ayurveda Hospital with ENT problem was from Kathmandu valley and out of Kathmandu valley.

In the study, total patients visited to Shalakya OPD for ENT problem were 573 in the fiscal year 2081 – 2082 among them maximum number 50.9% that is more than half of patient were cases of nose problem, 25.0% of cases that is one third of cases were related to ear diseases, while 14.4 % of cases were related to throat problems and only 9.6 % of cases were related to head problem. This result is opposite to the finding of study by Hussain, Mujahid, et al 2023 where huge number of patients 57% were had ear disorder as compare to nose disorder is 19.2%.¹¹ It was noted that many patients have multiple diseases so total diseases diagnosed with ENT problem was 623. Among the ear disease patient tinnitus was the most common ear disease (9.4%) and among the nasal problem most common nose disease was allergic rhinitis (27.7%). While in throat problem most common throat disease was tonsillitis (6.8%).

Most common disease seen in ENT OPD of Ayurveda Teaching Hospital was allergic rhinitis (27.7%), followed by rhinosinusitis (12.9%) which is different than the study by Khan, M. A., et al 2015 where pharyngitis is more common (16.50%) than Rhinosinusitis (15.75%) and allergic rhinitis (8.59%). The patient who visited to hospital was more from Kathmandu and more common ENT disease was allergic rhinitis, it can be inferred that Kathmandu being one of the polluted cities may have caused most of people to suffer from allergic rhinitis. In the study patient suffering from chronic suppurative otitis media was more (4.2%) as compare to

ear wax (2.6%) this finding is different than study by Zeeshan, M., et al 2018 where ear wax was the most prevalent ENT disease followed by chronic suppurative otitis media.¹² In the study, deviated nasal septum (7.2%) patients were more common as compare to nasal polyp (3.3%) patients which is similar to finding of study by Khan, M. A., et al 2015.¹³ Among throat problem, tonsillitis (6.8%) was found to be most common disease followed by pharyngitis (4.9%) the second most common diseases, which is opposite to the study finding by Flores, A.R., & Caserta, M.T. 2014 which show pharyngitis is the most common than tonsillitis in throat problem.¹⁴ Among the head problem, patient with headache without migraine(8.0%) were more common as compare to headache with migraine (2.4%).

Total 281 ENT patients were advised to go for Ayurveda therapeutic treatment to cure ENT problem. Most frequently advised therapy was nasya (63.3%). It is the procedure to install medicated oil in nostril and it is specially advised in case of nasal problem like allergic rhinitis, rhinosinusitis and DNS (Deviated Nasal Septum) only in case if patient is not having fever, weakness, hypertension etc. Second most frequently advised therapy was karnapuran (19.9%). It is procedure to install oil up to external acoustic meatus of ear and holding for few minutes. It is specially advised in case of ear problem like tinnitus and deafness but it cannot be advised in case of tympanic membrane perforation and discharge from ear. Third most frequently advised therapy was kawal (16.4%) and it is advised in case of oral problem - tonsillitis and pharyngitis. However very least advised therapy were shirodhara (2.1%), it is procedure of pouring medicated oil in forehead for some time and it is advised in case of migraine. Another least advised therapy is dhoomapana (1.8%). It is process of inhaling medicated smoke from nose and exhaling from mouth and it is specially advised in case of atrophic rhinitis.

CONCLUSION

From the current study it is concluded that among ENT diseases presenting in Shalakya OPD department of Ayurveda Teaching Hospital, all the age groups of the people are suffering from the ENT problem. Most common was seen nose problem followed by ear problem and throat problem. Among nasal problem the common disease was allergic rhinitis and most patient visited to Shalakya OPD were from Kathmandu. Kathmandu is the most polluted city in Nepal so maximum people suffer by rhinitis. Then second most common disease is rhinosinusitis and third most common disease is tinnitus. These are such a disease which impair the quality of life, decrease the productivity of work and reduced the night sleep time. It was noted that single patient has many cases of ENT problem as the ear, nose and throat diseases linked to each other. Similarly, Ayurveda therapeutic like nasya, karnapuran, dhoomapana etc cannot be applied in all the case of ENT problem while advising we have to consider many health conditions of patients. Regular follow up is needed for ENT patient as well as who have gone for Ayurveda therapeutic treatment.

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