



A CLINICOAETOLOGICAL STUDY ON VERTIGO IN A TRIBAL AREA MEDICAL COLLEGE

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ABSTRACT

Vertigo is quite a common disease presenting in otolaryngology departments everywhere. Because of the morbidity associated with it, the patients desire quick remedy of their malady. Because of complex aetiological factors and investigation protocols, this symptom has been a challenge to manage. A study was undertaken in Department of E.N.T. & Head and neck Surgery- S.L.N. Medical College, Koraput between May 2017 to October 2018 to gain a knowledge base on various nasal and extra nasal manifestation of this disease to improve their mode of treatment

KEYWORDS : Vertigo, Clinicoaeiology

INTRODUCTION

Out of the two commonest neurootological symptoms of deafness and vertigo, the later poses maximum challenge to the clinician as far as their clinicoaetiological aspect is concerned. The word 'vertigo' is derived from the Latin 'to vertere' meaning a sensation of turning. It is difficult to streamline the topic vertigo entirely¹. Vertigo may result from affection of labyrinthine receptor or affection of neural pathway or vestibular nuclei and their central connections. Thus, so many aetiological factors are associated with vertigo. For study of these causes of vertigo, it needs a through clinical and neurootological examination assisted by audio vestibular tests. Vertigo has a very common incidence in hospital with average hospital visit ranging between 20-30%^{2,3}. This study has been undertaken to find out the incidence of different diseases presenting with vertigo as one of their symptom and also to investigate properly to arrive at a proper diagnosis of cause of vertigo.

MATERIAL AND METHODS

The patients coming with complaints of vertigo were studied, treated and followed up in the Department of E.N.T. & Head and neck Surgery- S.L.N. Medical College, Koraput, between May 2017 to October 2018. Detailed history as regards chief complaint, duration of symptoms, age, and sex, personal and family history were recorded. A thorough general examination followed by otolaryngological, neurological examination was done. Routine haematological and in deserving cases, audio vestibular tests (pure tone audiometry, caloric test), CT scan (as needed), culture & sensitivity of ear discharge etc. was done. Patients with pregnancy and other terminal diseases were excluded from the study.

OBSERVATION

The incidence of vertigo in the present series accounts for .45% of total OPD cases in the Dept. of E.N.T. Out of 15548 cases coming to the OPD, 70 had presented with vertigo.

Table 1: Incidence of Vertigo

Total no. of cases attending E.N.T. OPD	Number of cases with symptom of vertigo	percentage
15548	70	0.45

The study revealed that a majority of patients (22) to be in the age group of 31-40 years followed by 14 cases in the age group of 21-30.

Table 2: AGE DISTRIBUTION

AGE DISTRIBUTION		
AGE (IN YEARS)	PATIENTS OPERATED FOR CSOM	PERCENTAGE
0-10	2	2.8

11-20	13	18.6
21-30	14	20
31-40	22	31.4
41-50	12	17.2
>50	7	10

In the present study males were observed to predominate the males in incidence.

Table 3: SEX INCIDENCE

SEX DISTRIBUTION		
SEX	NO OF PATIENTS	PERCENTAGE
MALE	45	64.3
FEMALE	25	35.7
TOTAL	70	100

As Western Orissa is a predominantly rural based state, most of the patients (76%) were from rural areas.

Table 4: Area of incidence

RESIDENCE	NO OF PATIENTS	PERCENTAGE
RURAL	36	51.4
URBAN	34	48.6

The incidence of the disease is more among agricultural workers (44.28%) followed by that industrial workers and miscellaneous group (17.14).

Table 5: Occupation

Occupation	No. of patients	percentage
Agriculture	31	44.28
Business	10	14
Student	5	7.14
Industrial worker	12	17.14
others	12	17.14

Table 6: Duration of symptoms

About 47% of cases presented for consultation in first month of their illness.

Duration of vertigo	NO. OF PATIENTS	PERCENTAGE
Less than 1 week	12	17.1
1 week to 1 month	21	30
1 month to 6 months	17	24.2
6 months to 1 year	12	17.1
More than 1 year	8	11.4

Table 7: Showing associated symptoms

Most common associated symptom was deafness followed by tinnitus

Associated symptoms	No. of patients	Percentage
Deafness	47	67

Tinnitus	44	62.8
Nausea & Vomiting	41	58.6
Headache	31	44.3
Fever	14	20
Otorrhoea	12	17.1
Stress/Anxiety	10	14

Table 8: Showing incidence different causes of vertigo

The commonest aetiology was found to be positional vertigo followed by Meniere's disease.

CAUSES OF VERTIGO	NO. OF CASES	PERCENTAGE
BPPV	22	31.4
MENEIRS	11	15.7
VESTIBULAR NEURONITIS	9	12.8
VERTIBROBASILAR INSUFFI	9	12.8
LABYRINTHITIS	5	0.71
OTOGENIC MENINGITIS	2	2.8
HEAD INJURY	3	4.2
CARCINOMA MIDDLE EAR	1	1.4
MOTION SICKNESS	1	1.4

Table 10: Showing types of hearing loss

CONDUCTIVE HEARING LOSS				SENSORINEURAL HEARING LOSS			
UNILATERAL	BILATERAL	TOTAL	PERCENTAGE	UNILATERAL	BILATERAL	TOTAL	PERCENTAGE
2	5	7	12.9	21	26	47	87

43% of sensoryneural loss cases had mild and 28% had moderate degree of loss. Moreover majority had high frequency hearing loss.

Table 11: Showing SISI finding in sensorIneural hearing loss cases.

SISI score was high in 14 cases.

No. of ears tested	High score	Percentage	Intermediate score	Percentage	Low score	Percentage
73	14	19.1	55	75.5	4	5.4

Table 12: Showing TONE DECAY TEST finding in sensorIneural hearing loss cases.

Tone decay was present in only 5 cases.

No. of ears tested	Tone decay present	Percentage	Tone decay absent	Percentage
73	5	6.8	68	93.2

Table 13: Showing finding of vestibular function tests.

Postural instability was noted in 34(48%) and positional instability was found in 22 (31.35%) cases.

Vestibular function tests	Positive finding in number of cases				
	Peripheral disorder	Central disorder	Unclassified	Total	Percentage
Postural instability	19	14	1	34	48.5
In-coordination	3	9	0	12	17.1
Past pointing	1	8	0	9	12.9
Spontaneous nystagmus	6	7	0	13	18.5
Simple balance tests	2	4	0	6	8.5
Positional tests	8	14	0	22	31.3
Neck torsion tests	0	0	1	0	1.4

Table 14: Showing Caloric response

Caloric response	No. of patients	Percentage
Normal	23	41.8
Canal paresis	30	54.5
Canal paresis combined with DP	2	3.6

As radiological findings and routine haematological investigations data revealed findings as expected of the disease concerned, no data correlation was done.

DISCUSSION

During the period between May 2017 to October 2018, total 70 cases of vertigo were seen in Department of E.N.T. & Head and neck Surgery- S.L.N. Medical College, Koraput, which amounts to 0.45% of total patients attending the department. Maximum cases were aged in between 2nd to 3rd decade followed by in the age group of 11-20. Asha Annie Abraham etal⁴ found maximum of their cases in 2nd to 4th decade. Male preponderance was present in our series. Patni et al⁵ had found male: female ratio of 1:0.6129 in their series⁵. As this is a tribal area medical college, majority patients were from rural background with cultivation as their profession. Sensori

OCULAR VERTIGO	1	1.4
PSYCHOGENIC	3	4.2
IDIOPATHIC	3	4.2

Out of these patients 19 had abnormal aural findings as noted in table 9.Features of complications were included only in otitis media cases.

Table 9: Showing details of abnormal aural finding

AURAL FINDING	No. OF CASES
WAX	2
EXTERNAL OTITIS	1
RETRACTED TYMPANIC MEMBRANE	2
ACUTE OTITIS MEDIA	1
CHRONIC OTITIS MEDIA	12
MASTOIDITIS	8
POSITIVE FISTULA SIGN	7
CHLESTEATOMA	4
MALIGNANCY	1

Out of the 70 patients, 54 (77%) were found to have hearing loss as depicted in table 10.Maximum (47) had sensorineural hearing loss.

neural hearing loss was present in majority cases. Same was the finding by Patni et al. Benign paroxysmal vertigo was the commonest cause of vertigo here and it correlates well with findings of Mohan kameswaran etal⁶, Meenakshi S et al⁷ and Patni⁵ et al.Chronic suppurative otitis media with its complications like mastoiditis leading to sensori neural hearing loss were seen in this study. Invetigation findings coorelated well with sensori neural hering loss.

CONCLUSION

Vertigo is a common disease with much morbidity. As many of them have vestibular pathology, a thorough clinical

evaluation and proper management will greatly benefit the patients.

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