

Vertigo Patients In ENT Opd- Study Of 200 Cases

Dr. Vaidik Chauhan*, Dr. Sunil M. Borisa**

*Senior Resident, Department Of E.N.T And Head & Neck Surgery Employee State Insurance Coporation Model Hospital, Bapunagar, Ahmedabad.

**Head Of Department, E.N.T And Head & Neck Surgery Employee State Insurance Coporation Model Hospital, Bapunagar, Ahmedabad.

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ABSTRACT

AIM : The aim of this study was to analyze the 200 vertigo patients presenting to ENT opd at ESIC Model Hospital Bapunagar, Ahmedabad having actual ENT cause of vertigo and other medical causes of vertigo and their management. **METHOD :** The study sample included 200 patients presented to ENT opd at ESIC Model Hospital Bapunagar, Ahmedabad between January 2019 to May 2019. Collected parameters included age, sex, insurance status, presenting symptoms, investigation, prescribed medication ,and referrals to other specialists and hospitals. **RESULTS:** A total of 200 patients were available for analysis. Most common diagnoses were "dizziness and giddiness" due to hypertension(35%) Migraineous vertigo (20%) , Hypotension related (15%) "benign paroxysmal vertigo" (12.5%) and "disorder of vestibular function, unspecified" (10.5%),Psychogenic (7.5%) and other (5%). Referrals and admissions were made in 15%, mostly to medicine, followed by neurologists (4%), and hospitals (1.5%). Most referrals were made for unspecific diagnoses and for "vestibular neuronitis." The rate of medical prescriptions was 65%, with the most common prescription being for antivertigo preparations. **CONCLUSIONS:** Vertigo-related disorders are frequently diagnosed in ENT practices in ESIC Model Hospital, Ahmedabad.. The majority of these diagnoses are unspecific and lead to an increased rate of referrals and hospital admissions. The medical prescription rate, especially of anti vertigo was high, even among patients with benign paroxysmal positioning vertigo. This study reflects a mostly pragmatic approach to a complex diagnostic and therapeutic challenge in daily ENT practice.

INTRODUCTION

Vertigo is a common disorder encountered in daily practice. It is bothersome for patients and as recurrence is common it also affect doctor- patient relationship. We have analyzed 200 patients of vertigo presented to ENT opd in esic model hospital bapunagar and made specific treatment protocol so that every vertigo patients can be benefited.

The term "dizziness" means an unpleasant disturbance of spatial orientation, erroneous perception of movement, which is more specifically called "vertigo." Vertigo involves a perceived movement either of one's own body, such as swaying or rotation, or of the environment, or both. Alongside headache, dizziness and vertigo are among the more common symptoms with which patients present to physicians in general, not just to neurologists. Their lifetime prevalence is approximately 20% to 30% (1). Most of the time affected persons often visits to family physicians first and proceeding through ENT specialists, neurologists,

ophthalmologists, internists, and orthopedic, before the correct diagnosis is made and the appropriate treatment is begun. In other words, these patients often fall into the cracks between medical specialties.

History taking is main stay in treatment. Ancillary testing is of secondary importance. The relative frequencies of various syndromes presenting with dizziness and vertigo are listed in table 1. The important criteria for distinguishing among them are as follows(2)

The type of dizziness/vertigo: rotatory vertigo resembles the sensation of being on a merry-go-round (in vestibular neuritis and other disorders), while postural vertigo resembles the sensation of riding in a boat (e.g., in bilateral vestibulopathy). Many patients use the term "dizziness" for lightheadedness without any sensation of movement (e.g., in drug intoxication).

The duration of dizziness/vertigo: attacks may last for seconds or minutes (as in vestibular paroxysm) or hours (as in Meniere's disease or vestibular migraine).

Correspondence Address : Dr. Vaidik Chauhan, (Senior Resident)
Department Of E.N.T And Head & Neck Surgery Employee State Insurance Coporation
Model Hospital, Bapunagar, Ahmedabad. E-mail : vmc chauhan@yahoo.com

TABLE 1

Disease Name	Patients No.(200)	Percentage (%)
Hypertension	70	35
Migraineous vertigo	40	20
Hypotension related	30	15
Benign paroxysmal vertigo	25	12.5
Disorder of vestibular function, unspecified	10	5
Psychogenic	15	7.5
other	10	5

TABLE 2

Diagnosis	Time of vertigo lasting	Associated symptoms
Hypertension	Few hrs to day	Generalized Headache, restlessness
Migraineous vertigo	Few hrs	Throbbing single side Headache, vomiting, lethargy
Hypotension related	Few minutes to hrs	Throbbing headache in centre of head, perspiration
Benign paroxysmal vertigo	Few seconds to minutes	Positional change while sleeping
Disorder of vestibular function, unspecified	Few minutes	Fever, vomiting, unsteadiness
Psychogenic	unspecified	Psychosis
other	unspecified	

Persistent vertigo lasting days or weeks is seen in vestibular neuritis, among other conditions. Attacks of postural vertigo lasting minutes to hours can be produced, for example, by brainstem transient ischemic attacks.

Precipitating and exacerbating factors of dizziness and vertigo: the symptoms arise at rest in some conditions (e.g., vestibular neuritis); they can also arise when the patient walks (as in bilateral vestibulopathy) or be induced by turning the head to the right or left (as in vestibular paroxysm).

Other possible precipitating factors include turning in bed (as in benign paroxysmal positioning vertigo [BPPV]), coughing, pressing, and loud tones of a particular frequency (Tullio's phenomenon, seen in perilymph fistula), as well as certain social or environmental conditions (e.g., phobic postural vertigo).

The accompanying symptoms, if present, may arise from the inner ear - e.g., attacks of intense tinnitus, hearing impairment, and a pressure sensation in the ear, which are typical of Meniere's disease. Diplopia, sensory disturbances, dysphagia, dysarthria, and paralysis of

arms and legs are symptoms of central origin that usually arise in the brainstem. Headache or a history of migraine may point to the diagnosis of vestibular migraine but can also be caused by brainstem ischemia or posterior fossa hemorrhage.

General principles of treatment

The treatment of dizziness and vertigo(2) may include medication, physical therapy, and psychotherapy; a few limited cases may require surgical treatment. Before the treatment is begun, the patient should be told that the prognosis is generally good: many of these conditions have a favorable spontaneous course, both because peripheral vestibular dysfunction tends to improve and because there is central vestibular compensation for asymmetrical peripheral vestibular tone. Moreover, most of these conditions can be treated successfully.

In this the authors summarize the diagnosis and treatment of dizziness, vertigo, and disequilibrium.

1. Hypertension

Patient referred to ent opd for vertigo from hypertension typically presented with severe headache and

lightheadedness with restlessness. Vertigo not relieved by antivertig
o medication.

Change of antihypertensive drug and proper counseling for food and habit it can be controlled in few days. With salt restricted diet and rest vertigo sensation goes off.

2. Migraine related vertigo

Patient presented with severe throbbing one sided headache, nausea, vomiting, lethargy with vertigo lasting few minutes to hrs.

The acute attack can be treated with analgesic, ergotamine,caffeine, prochlorperazine drug combination, plenty of liquid, avoid loud sound and sunlight can be beneficial.

3. Hypotension

Patient presented with sudden fall down while rising up from bed and black out with perspiration. Can be treated with proper fluid replacement and referred to medicine department to rule out cardiac and cause of hypotension.

4. BPPV (benign paroxysmal positioning vertigo)

This is the most common type of vertigo; lifetime prevalence of 2.4% (1). it mainly affects older patients (2) and is characterized by brief attacks of rotational vertigo, accompanied by vertical positioning nystagmus that rotates toward the lower of the two ears and beats toward the forehead. The attacks are precipitated by reclination of the head, or by lateral positioning of the head or body, with the affected ear downward. After a change in position of one of these types, rotational vertigo and nystagmus arise after a latency of a few seconds and then take a characteristic crescendo-decrescendo course, lasting a total of 30 to 60 seconds. The nystagmus corresponds to a so-called ampullofugal excitation of the affected posterior vertical semicircular canal of the affected (lower) ear.

Many of cases are idiopathic; the remaining, symptomatic cases are most commonly due to head trauma, vestibular neuritis, or Meniere's disease (3). BPPV also arises with greater than usual frequency after prolonged bed rest necessitated by other diseases, or after surgery. BPPV of the horizontal semicircular canal is rare and is precipitated by rotation of the head in the recumbent position. BPPV is called "benign" because it usually resolves spontaneously within a few weeks or months; in some cases, however, it can last for years. If left untreated, it persists in about 30% of patients.

The canalolithiasis hypothesis explains all of the manifestations of positioning vertigo and nystagmus (4). According to this hypothesis, the condition is due to the presence of agglomerates of many otoconia that nearly fill the lumen of the semicircular canal and are freely

mobile within it, instead of the small pieces of particulate matter that adhere firmly to the cupula (so-called cupulolithiasis).

BPPV is treated with positioning maneuvers: rapid repositioning of the head can move the otoconial agglomerate out of the semicircular canal so that it can no longer cause positioning vertigo. The treatments of choice are the Semont (5) and Epley maneuvers. For the Semont maneuver, see figure 1; the Epley maneuver involves rotation of the patient in the recumbent position with the head hanging down. Most patients can perform these maneuvers themselves after brief training. The two are equally effective, and the cure rate is more than 95% within a few days, as shown by multiple controlled studies and metaanalyses (6). The rate of recurrence of BPPV is about 15% to 30% per year. The symptoms eventually recur at some time after effective treatment in about 50% of patients (7) but can then be treated effectively a second time in the same manner.

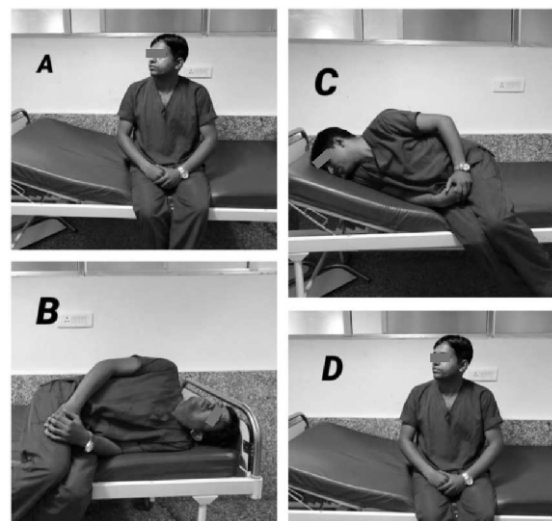


Figure 1: The treatment of benign paroxysmal positioning vertigo (BPPV) with the Semont maneuver. The illustration shows the treatment of BPPV due to canalolithiasis of the left posterior semicircular canal.

- In the initial, sitting position, the head is turned 45° to the side of the unaffected ("healthy") ear.
- The patient is laid on the left side, i.e., on the side of the affected ear, while the head is kept in 45° of rotation to the other side. This induces movement of the particulate matter in the posterior semicircular canal by gravity, leading to rotatory nystagmus toward the lower ear that extinguishes after a brief interval. The patient should maintain this position for about one minute.
- While the head is still kept in 45° of rotation toward the side of the healthy ear, the patient is rapidly swung over to the side of the unaffected ear, so that the nose

now points downward. The particulate matter in the semicircular canal now moves toward the exit from the canal. This position, too, should be maintained for at least one minute.

- d) The patient returns slowly to the initial, sitting position. The particulate matter settles in the utricular space, where it can no longer induce rotatory vertigo. This sequence (a-d) should be performed three times in a row three times per day, in the morning, at noon, and at night. Most patients are free of symptoms after doing this for three days.

5. Vestibular neuritis

The rotatory vertigo often arises acutely and lasts from several days to a few weeks. Clinical examination is performed with Frenzel's goggles that are lit from within and contain magnifying lenses (+16 diopters). These goggles prevent the suppression of spontaneous nystagmus by visual fixation and make the patient's eye movements easier to observe. Spontaneous nystagmus away from the affected side is seen, along with a falling tendency, ocular tilt, and deviation of the subjective visual vertical axis toward the affected side.

Persistent rotational vertigo with a pathological inclination of the visual vertical axis toward the side of the affected labyrinth

Spontaneous, horizontally rotating nystagmus toward the unaffected side, producing apparent movement of the environment ("oscillopsia")

Gait deviation and falling tendency toward the affected side Nausea and vomiting

Unilateral dysfunction of the horizontal semicircular canal, as revealed by the Halmagyi-Curthoys head impulse test (8) for the function of the vestibulo-ocular reflex, as well as by caloric testing.

Treatment consist of glucocorticoid-methylprednisolone at an initial dose of 100 mg daily, reduced in 20mg steps every four days, significantly improved the recovery of peripheral vestibular function.

"Physical therapy: a further principle of treatment is the promotion of central compensation by physical therapy. Equilibrium training significantly lessens the time required for vestibulospinal compensation and postural regulation to develop (9). Voluntary eye movements and fixation are exercised in order to improve impaired visual fixation; furthermore, active head movements are exercised to realign the vestibular reflex, as well as balance tasks, goal-directed movements.

6. Psychogenic vertigo

Patient has no abnormality but for the gain of benefit they pretend to have severe vertigo.

Can be treated with psychological counseling and antipsychotic medication by referring to psychiatry

department after ruling out the central and peripheral causes of vertigo.

7. Other

Cervicogenic vertigo , vertigo due to neurological tumor like acoustic neuroma can also come to ent opd can be ruled out with taking history. In cervicogenic vertigo it increase with head movement to downwards and upwards.

Neurological disease can be accompanied by other central symptoms like upbeatting or down beating nystgmus. Which can be referred to neuromedicine department.

CONCLUSION

Vertigo-related disorders are frequently diagnosed in ENT practices in ESIC Model Hospital, Ahmedabad.. The majority of these diagnoses are unspecific and lead to an increased rate of referrals and hospital admissions. The medical prescription rate, especially of anti vertigo was high, even among patients with benign paroxysmal positioning vertigo.

History taking and proper ENT examination can help cure 98% of vertigo patients pertaining to ENT cause.

Patients with hypertension, hypotension, migraine, cervical disorder and psychiatric illness were examined and referred to respective department for further management.

Patients with BPPV and vestibular disorder were given maneuver and admitted for i.v drug administration respectively. Most of the patients treated successfully with less recurrent rate.

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