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Case Report

Vestibular neuronitis of idiopathi origin: a case report

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ABSTRACT

Vestibular Neuronitis is a neuronal condition characterized by spontaneous and unilateral vestibular loss suddenly with preserved hearing and no signs of brain stem dysfunction. According to large population studies, it is the sixth cause of vertigo with an incidence of 8%. Here is the case report of VN which was observed in a super speciality hospital. A 42 years old male patient was admitted in a private super speciality hospital with the chief complaints of history of vomiting 4 episodes, neck pain, mild headache and gaint imbalance since 5 days. Complete analysis of diagnostic reports was done and appropriate treatment given. This case emphasizes the importance of periodic evaluation and reporting of vestibular neuritis cases accumulating clinical knowledge. In this particular type of cases it is difficult to identify the etiology and pathophysiology, hence it is vitally important to conduct such studies.

Keywords: Vestibular neuronitis, Vestibulo-perceptualdeficits, Oscillopsia, Nystagmus, Postural instability

INTRODUCTION

Vestibular neuronitis (VN) is a neuronal condition characterized by spontaneous and unilateral vestibular loss suddenly with preserved hearing and no signs of brain stem dysfunction which is generally attributed to viral infection. According to large population studies, it is the sixth cause of vertigo with an incidence of 8%.[1] In a study conducted by Cengiz et al, it is the 3rd common cause of peripheral vertigo after benign paroxysmal positional vertigo and Meniere's disease, constituting about 7-10% of all vertigo cases.[2] The most probable symptoms include vertigo, nausea, postural instability, balance difficulties and vestibular nystagmus. Even though the cause of VN is not known precisely, some mechanisms support the evidence for VN, which include both peripheral and central, most predominantly the later one which may be visual dependence selective vestibulo-perceptual deficits.[3] Here is the case report of VN which was observed in a super speciality hospital.

CASE REPORT

A written consent was obtained from patient for publication of this case report and accompanying images. A 42 years old male patient was admitted in a private super speciality hospital with the chief complaints of history of vomiting 4 episodes, neck pain, mild headache and gaint imbalance since 5 days. Giddiness increased while turning to right side, true spinning sensation. The patient reported no alleviating or aggravating factors. Patient is a known case of cervical spondylosis and hypertensive and on medication with tablet metoprolol succinate prolonged release 25 mg OD since 2014. No history of diabetic mellitus, tuberculosis, asthma, coronary artery disease, epilepsy. History of similar complaints in 2014 and no proper documentation regarding the treatment taken. He denied using drugs or anabolic steroids or any exposure to radiation. The family history of the patient is not significant and social history is non-smoker, occasionally alcoholic, married with normal sexual life and regular bowel movements, normal appetite and micturition and no known drug allergies. Patient is alert and oriented to place, person and time. He

had no distress, but concerned about the present symptoms. Vitals found to be normal at the time of admission.

General laboratory examination

Electrolytes levels, blood urea, Liver function tests, cholesterol levels, Complete blood picture was normal, but neutrophills and SGPT were slightly increased.

MRI scan

Digital MRI cervical spine with whole spine screening: vertebral heights, morphology and signal pattern is maintained. Posterior neural arch elements are normal. No abnormal focal signal noted. C5-C6 and C6-C7 disc height reduction and bulge causing anterior thecal sac compression.

MRI of brain: brain parenchyma shows normal gray-white matter differentiation. No abnormal focal signal changes/mass lesion is noted in the brain. Both gangliocapsular regions, infratentorium, brainstem, cerebellum, all four ventricles appear normal. Finally, it reveals no obvious morphological abnormality.

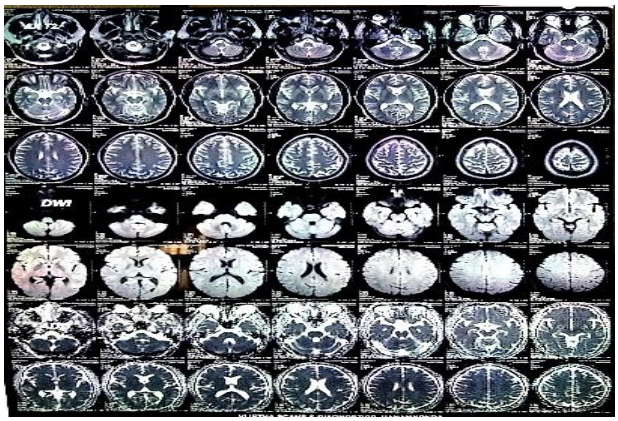

Figure 1: MRI brain.

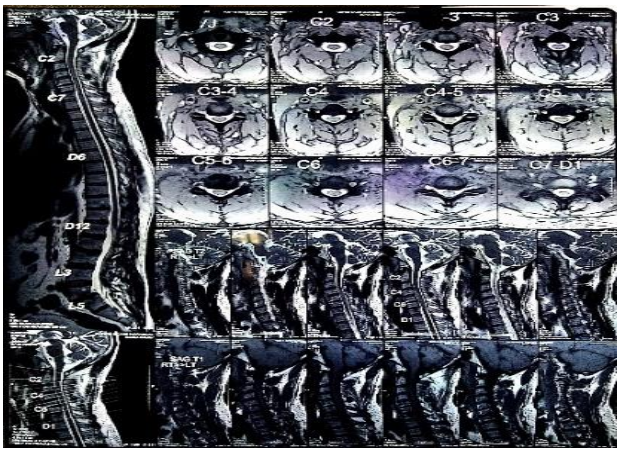

Figure 2: Digital MRI cervical spine with whole spine screening.

Treatment

The patient condition was more evaluated before starting of the treatment and his attendees were informed priorly regarding the diagnosis done, pathological findings, stage of the disease and further plans for treatment. After complete analysis of diagnostic reports patient has started with piracetam injection 60 ml IV BD, ketamine injection 50 mg in 100 ml NS IV OD, pantoprazole injection 40 mg IV OD, telmisartan tablet 40 mg p/o OD, β-histine tablet 24mg p/o OD, prochlorperazine 5mg p/o BD, diclofenac-SR tablets 75 mg p/o OD on day 1. On day 2 patient has complaints of headache and heaviness, conscious and coherent and he was advised acetaminophen and hydrocodone, 500 mg SOS. Everything was normal on day 3 and the same treatment was continued. The patient was discharged on day 4. Discharge medication includes methyl prednisolone tablet 16 mg p/o OD for 3 days followed by 8 mg for next 3 days and 4 mg for next 3 days and then stop, piracetam tablet 800 mg p/o BD, prochlorperazine tablet p/o BD for 3 days, telmisartan tablet 40 mg p/o OD.

Figure 3: Lumber spine AP/LAT.

DISCUSSION

It is quite difficult to identify the etiology and pathophysiology that meets the diagnostic criteria for VN. For a differential diagnosis, hearing and balance tests must be carried out in addition to a good anamnesis. The main objective is to evaluate complete or partial unilateral loss of vestibular function.[4] According to published guidelines for the treatment of vestibular disorders, vestibular physical therapy program may be recommended which are best to treat the dizziness and balance problems commonly seen with an inner ear disorders. In this present case, as patient is in the acute phase brief course of antiemetic and vestibular suppressants is usually reduced the symptoms for present. Corticosteroids may improve long-term outcomes if symptoms persist. Early vestibular rehabilitation is important. It becomes difficult for

patients to explain their complaints and for the physician to understand their complaints. Hence during patient education, the benefit of continuing treatment plan was stressed and need for follow-up was discussed. Patient education was also given about side effects and symptoms. Overall body posture balance exercises, eye/ear head-turn exercises were explained. Information regarding life style modifications, medication adherence, and diet to follow were informed to patient attendees.

CONCLUSION

This case emphasizes the importance of periodic evaluation and reporting of vestibular neuritis cases accumulating clinical knowledge. Dizziness symptom might be associated with many diseases but might also be caused by different systems. The majority of differential diagnoses and treatments is based on clinical information and medical history. Clinicians should constantly update themselves. In this particular type of cases it is difficult to identify the etiology and patho physiology, hence it is vitally important to conduct such studies, review evidence, establish consensus committees, and improve the systematic and institutional approach from time to time.

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