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ORIGINAL ARTICLE

Clinical characteristics of patients with persistent postural-perceptual dizziness☆,☆☆

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KEYWORDS
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Abstract
Introduction: Persistent postural-perceptual dizziness is the dizziness that lasts for over three months with no clinical explanation for its persistence. The patient's motor response pattern presents changes and most patients manifest significant anxiety.
Objective: To evaluate the clinical characteristics of patients with persistent postural and perceptual dizziness.
Methods: statistical analysis of clinical aspects of patients with persistent postural-perceptual dizziness.
Results: 81 patients, average age: 50.06 ± 12.16 years; female/male ratio: 5.7/1; main reasons for dizziness: visual stimuli (74%), body movements (52%), and sleep deprivation (38%). The most prevalent comorbidities were hypercholesterolemia (31%), migraine headaches (26%), carbohydrate metabolism disorders (22%) and cervical syndrome (21%). DHI, State-Trait Anxiety Inventory – Trait, Beck Depression Inventory, and Hospital Anxiety and Depression Scale questionnaires were statistically different ($p < 0.05$) when compared to controls. 68% demonstrated clinical improvement after treatment with serotonin reuptake inhibitors.
Conclusion: Persistent postural-perceptual dizziness affects more women than men, with a high associated prevalence of metabolic disorders and migraine. Questionnaires help to identify the predisposition to persistent postural-perceptual dizziness. The prognosis is good with adequate treatment.

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PALAVRAS-CHAVE
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Comorbidade

Caracterização clínica dos pacientes com tontura postural-perceptual persistente (TPPP)

Resumo
Introdução: A denominação tontura postural-perceptual persistente (TPPP) é atribuida à tontura que se mantém por mais de 3 meses em pacientes, sem que exista justificativa clínica para a sua persistência. A maioria dos pacientes possui perfil ansioso ou experimenta alto grau de ansiedade no início dos sintomas. O padrão de resposta motora apresenta-se alterado, com hipervigilância e hipersensibilidade a estímulos visuais e de movimento.
Objetivo: Avaliar as características clínicas de pacientes com diagnóstico de TPPP.
Método: Análise dos aspectos clínicos de pacientes do ambulatório de TPPPe quantificação do perfil ansioso ou depressivo.
Resultados: Foram avaliados 81 pacientes, com média de idade de 50,06 ± 12,16 anos; relação mulher/homem de 5,7/1; principais gatilhos para tontura: estímulos visuais (74%), movimentos corporais (52%) e privação de sono (38%). As comorbidades mais prevalentes foram hipercolesterolemia (31%), migrânea (26%), distúrbios do metabolismo do açúcar (22%) e síndrome cervical (21%). Os questionários DHI, STAI-Traço, Beck para depressão e HADS foram estatisticamente diferentes (P < 0,05) entre pacientes e controles. 68% de melhora clínica com o uso de inibidores da recaptação da serotonina.
Conclusão: TPPP acomete principalmente as mulheres, sendo alta a associação com distúrbios metabólicos e migrânea. Os questionários auxiliam na identificação da predisposição à TPPP. Há bom prognóstico com o tratamento adequado.

Introduction

The field of Otoneurology evolved considerably in recent decades, from a simple vestibulometric evaluation of the vestibule-ocular reflex to a complex investigation of balance and posture. Nevertheless, there are patients who exhibit undiagnosed dizziness not explained by some otoneurologic disease, even with the help of the full range of diagnostic tests offered today. The tests present normal results; until a short time ago, these patients were labeled as psychogenic. Psychiatric syndromes also do not explain the symptoms found in these individuals. In 1986, Brandt[1] described the phobic postural vertigo (PPV), which still did not explain in detail the origin of symptoms nor suggested any kind of treatment. At the beginning of the 21st century, Staab and Ruckenstein related physical symptoms of PPV to behavioral factors, in may 2013, it was renamed persistent postural and perceptual dizziness (PPPD) for compatibility with DSM-5.[2,3]

PPPD is defined as a type of dizziness that persists for over three months with no identifiable etiology.[3] This is a somatoform disorder, representing an interface between otoneurology and psychiatry. Apparently, patients with PPPD present a profile that predisposes to the persistence of dizziness after an event of physical or emotional illness. When there is such a profile, the postural stability maintenance system becomes hyper-reactive to movement, especially in environments with high visual demands. From this sensitivity, there is an increase in the risk of behavioral disorders such as anxiety, phobias, and depression.[4] Thus, PPPD reflects the persistence of a vigilant pattern of posture control that was assumed during the acute phase of the disease.[4]

PPPD is a chronic condition that can last for months or years,[5–7] and is characterized by six basic aspects[4]: (1) Persistent sway or instability not detectable on physical examination; (2) Worsening of symptoms in the standing position; (3) Worsening of symptoms with head movements or with complex visual stimuli; (4) Presence of illness or emotional shock at symptom onset[4]; (5) Concurrent diseases, mainly that gave rise to the symptoms[7]; (6) Anxiety.

The association between dizziness and anxiety in otoneurological patients is attributed to neural interactions explained by neuroanatomy.[2] These interactions include connections between central-vestibular pathways and neural networks of anxiety and fear. The functional neurocircuitry of anxiety includes the amygdala, insula, anterior cingulate, prefrontal cortex, superior frontal gyrus, paracingulate, and inferior frontal gyrus. These structures are closely linked to emotion, and their dysfunction can result in impaired neural processing, with consequent anxiety.[8] The identification of the interdependence between otoneurologic and psychiatric diseases becomes crucial in the prognosis of dizziness.[9]

Based on the concepts presented by Staab and Ruckenstein,[9] PPPD can produce three different manifestations: (1) Psychogenic: anxiety is the sole cause of dizziness; (2) Otogenic: an otoneurologic disease acts as a trigger that activates the circuitry of anxiety; (3) Interactive: an otoneurologic disease triggers dizziness, which in turn exacerbates pre-existing anxiety symptoms. There are reports describing that the persistence of dizziness is directly related to the severity of the initial imbalance and to the anxiety generated by bodily sensations during the episode.[10] The anxiety impacts postural control, motor skills and eye tracking.[11,12]