

Dizziness: The linguistic aspects of diagnosis

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ABSTRACT

Aim: Dizziness complaints are the most frequent in patients in the primary health-care system and in the treatment of emergency conditions in the practice of neurologists and general practitioners. **Methods:** Difficulties in diagnosing dizziness are explained by the fact that the verbal report of a patient plays a leading role in the procedure of diagnosis. There are no instrumental diagnostic methods (except for magnetic resonance imaging with strokes and hearing auric examination for hearing impairment), which allow doctors to determine the cause of dizziness. **Results:** Thus, specific verbal descriptors are used to diagnose the concrete type of the disease: Vertigo (true rotational dizziness), presyncope, imbalance, vague sensations of faintness, anxiety, and depression. It should be noted that in one patient, two or more types of dizziness can occur simultaneously. **Conclusion:** The research was conducted at Kazan Federal University Clinic (Kazan, Russia) by the group of clinical linguists and neurologists. The experience of this joint work demonstrates the advisability of such cooperation in clinical situations when the verbal diagnostic component is the key to the assessment of neurological dysfunction.

KEY WORDS: Clinical linguistics, Disequilibrium, Dizziness, Phrase descriptor, Presyncope, Vertigo, Word descriptor

INTRODUCTION

The development of modern medical diagnostic technologies is very rapid in the 20th–21st centuries, but there still remains a group of diseases as depression, anxiety, pain, and dizziness, the material substrate of which has not yet been entirely revealed and described. It is impossible to reveal the reasons of these diseases with the help of instrumental visual examination (magnetic resonance imaging, electroencephalography, and ultrasound) or laboratory tests. The only method of diagnosis applicable for such diseases is the report of the patient or his/her relatives, the quality of which depends on different factors (physical state, priorities, qualification of the doctor, and amount of time for the interview). Hence, to unify the patients' data and to standardize the results for the possibility of comparison, it is necessary to work out the questionnaires and batteries of tests that represent a set of questions, which should be valid from neurological and linguistic points of view.

The structure of the questionnaire can be simple, that implies “yes” and “no” answers to the proposed

questions 7619 (for instance, geriatric depression scale - short form), can be more complex (for example, hospital anxiety and depression scale), (“most of the time,” “a lot of the time,” “from time to time, occasionally,” “not at all”). It depends on the type of question. To determine the severity of the symptom, the patient is asked to choose one from several options offered.

Difficulties in diagnosing dizziness are explained by the fact that the verbal report of a patient plays a leading role in the procedure of diagnosis. According to the recommendations given by the American Board of Family Medicine, it is very important for practitioners to determine during the first meeting with the patient what he/she means by the word “dizziness.”^[1]

MATERIALS AND METHODS

The research was conducted at Kazan Federal University Clinic (Kazan, Russia) by the group of neurologists and clinical linguists.

The purpose and objectives of this research have determined the methodological basis for the study. The experimental and descriptive methods were used for the research.

The material of the study was collected by the method of continuous sampling from the questionnaires and

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batteries of tests used in neurological practice (in English language) and with the help of conversation analysis method.

RESULTS

As a result of the research, we found out the appropriate verbal descriptors for different types of dizziness.

1. Vertigo is a true rotational dizziness, a sense of movement (rotation) of surrounding objects, and/or the person himself/herself in space. The causes of systemic or rotational dizziness may be benign paroxysmal positional vertigo, acoustic neuroma, Meniere's disease, labyrinthitis, vestibular neuronitis, vestibular migraine (migraine associated dizziness), including benign recurrent vertigo in adults, basilar migraine, or migraine of the basic artery, stroke of the head brain or cerebellum, toxic damage to the vestibular apparatus, and temporal epilepsy.^[2-4]

Most often, patients find it difficult to choose the right definition. In this case, several definitions should be proposed to them: "*Objects turn around me*," "*I have a sensation of turning the floor underfoot*," "*I have a sensation of body rotation*." If the patient chooses these descriptors, then dizziness can be qualified as vertigo.

2. *Presyncope* is a pre-fainting condition, a sense of proximity to loss of consciousness caused by a decrease in total cerebral perfusion. This type of dizziness is caused most often by asthenia in case of somatic diseases (anemia, infectious diseases, and fever), cardiac arrhythmias, myocardial infarction, heart failure, carotid stenosis, and arterial orthostatic hypotension, including iatrogenic (taking drugs provoking it).^[4-6]

The difficulty of verbalization is explained by the fact that not all patients have had syncope previously. If a patient had syncope in his/her life, then the comparison of sensations at that time and at the time of complaint helps. Otherwise, it is advisable to offer the following verbal descriptors: "*Everything went black*," "*I feel sudden weakness in the whole body*." If a patient agrees with this definition of his/her sensations, presyncope can be diagnosed with a high degree of certainty.

3. Disequilibrium is a sense of wabbliness, instability in standing position, and problems with balance. Most clinicians believe that this kind of dizziness is a symptom of one or more individual diseases, often found in the elderly, and sometimes, called "*presbyataxia*" or "*senile dizziness*." Since the regulation of the body balance requires a qualitative afferentation from several systems (vision, mechanoreceptors of muscles, tendons, skin, and skin exteroceptors) and timely efferent

correction, pathological conditions and age-related changes affecting these systems usually lead to chronic "dizziness" in the elderly.

Chronic "dizziness" is associated with multiple risk factors (heart failure, myocardial infarction, stroke, arthritis, diabetes, syncopal conditions, anxiety, depression, decreased hearing, alcohol consumption, smoking, nervousness, and taking certain drugs) and is considered as a combination of symptoms appearing as a result of multisystem damage.^[7-9]

As our experience shows, in this kind of dizziness, there is no diversity of verbal descriptors. The most common characteristic is "*I feel fuzzy*," so the leading method of diagnosis is the detection of the diseases of the nervous, visual, and somatic systems.

4. Lightheadedness (uncertain feeling of lightness) is often described as a feeling of lightness and emptiness in the head, and it is difficult verbalized feeling of ail and disorientation. In these situations, patients often describe postural instability or an unclear feeling of dizziness (sensation of numbness, lightheadedness, unsteadiness in walking, and sense of balance loss) or - very seldom - rotatory dizziness with concomitant autonomic symptoms and nausea.^[10] Difficulties in describing this variant of dizziness are explained by the fact that lightheadedness is determined not by malfunction of the systems maintaining equilibrium but by a fear of falling, which is an anxious disorder. It is the difficulty of anxiety verbalization in general medical practice and the substitution of sensations with somatic (physical) symptoms that cause the uncertainty of the complaints.^[2,4,11-15] Currently, these disorders are also regarded as postural phobic dizziness.

Uncertain feelings of patients can be identified if a doctor asks whether they know the feeling that most people experience looking down from a great height. This sensation of numbness characterizes the state of anxiety and fear of falling. If the patient reports that he experiences a shaky sensation in the process of walking and a feeling of rocking his/her body, a doctor should clarify whether other people notice this wabbliness. If the answer is negative, most likely, it is a feature of anxiety.

The next feature of anxious vertigo is its provocation with visual or vestibular load (a large crowd of people in a store or restaurant, bridges, driving a car, and working with a computer). Our experience shows that a patient does not focus his/her attention on it, and therefore, the interviewer should most actively identify these provocative moments. An important aspect not assessed by patients is improving the condition when taking small doses of alcohol and playing sports.

A long-established test in clinical neurology is the determination of postural stability with closed eyes (Romberg's test), without additional loads, and with verbal or other tests. In the latter case, the patient is prompted to respond quickly to any "difficult" questions or to determine the letters and/or digits that the doctor "draws" on the skin of his head or body. This load reduces patient anxious expectations, and postural instability is significantly reduced.

It is also possible to use the scales of anxiety and depression. In our practice, we have accumulated the most significant aspects that characterize the dizziness determined by anxiety.^[16] Here is the list of questions, the answers to which were evaluated according to the Likert scale:

1. I feel fear of vertigo recurrence.
2. I feel fear of falling outside the house (on the street).
3. I need a support in standing position if I talk to someone or have a speech anywhere.
4. I think that other people notice my defect (shakiness).
5. I am afraid of falling and injury because of my dizziness.
6. I have a feeling of severe panic.
7. I feel a sense of alarm.
8. I limit my everyday activity because of my dizziness.
9. I always think about my dizziness.
10. I am afraid of stroke.
11. I am sure that I have the right diagnosis.
12. I think that my doctor knows how to treat me.
13. I am afraid when crossing the street.
14. I am afraid to get up from my bed very fast and to turn my head quickly.
15. I can forefeel my dizziness.

As our study showed, the greatest anxiety is experienced by patients with presbyataxia, then by the patients who underwent ischemic stroke and with benign paroxysmal positional headache, and by the patients with Meniere's disease feel less anxiety. It should be noted here that one patient may have two or more types of dizziness.

DISCUSSION

Patients with alexithymia should be interviewed more carefully, as they experience difficulties with understanding and verbalization of sensations^[17] and sensual frameworks of words.^[18]

If the clarification of symptoms is carried out in a language which is not native for a patient, it is advisable to ask him to come again with an accompanying person who knows the state language and the patient's native language.

On the territory of the Republic of Tatarstan, the main percentage of the population is bilingual (native

speakers of the Tatar and Russian languages). However, it is very often necessary to interview patients who understand Russian only in common spheres. In this connection, there is a need to translate questionnaires used in neurological practice into Tatar.^[19] There are no questionnaires on dizziness in the Tatar language at the moment.

CONCLUSIONS

The authors come to the conclusion that linguistic diagnostic methods are very significant in patients with dizziness. A doctor should provide the patient with several variants of verbal descriptors to choose the most suitable.

As a result of the study, the authors revealed the most appropriate word and phrase descriptors for different types of dizziness (vertigo, presyncope, disequilibrium, and lightheadedness) and offered the scheme of questionnaire for dizziness caused by depression and anxiety.

The results of the study can be used in clinical practice (in diagnosis and treatment of diseases connected with dizziness and other neurological diseases).

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