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DERLEME

Vertigo and medico-legal problems

Vertigo ve adli tıp sorunları

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Forensic medicine deals with the interactions of medical science with the law. All branches of medicine can play a role in dealing with medico-legal problems. Clinical and forensic evaluators need to be able to recognize variations of symptoms or syndromes that "don't read the textbooks". Atypical presentations of dizziness or vertigo have the potential to cause much confusion in diagnosis, treatment planning, and legal adjudication, if not correctly recognized. This article describes the forensic medicine in the legal system and forensic aspects of other medical specialities, gives an overview about medicolegal viewpoint of vertigo and at last underline the importance of objective clinical and forensic evaluation of the patient with vertigo.

Key Words: Dizziness/diagnosis; forensic medicine; physical examination; sensation disorders; vertigo/physiopathology; vestibular diseases/complications.

Adli tıp, tıp biliminin hukukla kesiştiği alanlara giren sorunlarla ilgilenir. Tüm tıp branşları da, adli-tıbbi sorunların çözümünde rol alabilir. Klinikte ve adli tıpta çalışanlar, ders kitaplarında okunmayan veya geçmeyen semptom veya sendrom çeşitlerini tanıyabilmeye ihtiyaç duyarlar. Tipik olmayan vertigo olguları ve sorunları doğru değerlendirilmediğinde, bunların tanı, tedavi planı ve adli değerlendirmelerde fazlasıyla karmaşaya neden olabilme özellikleri vardır. Bu yazıda, adli sistem içinde adli tıp ve diğer tıp branşlarının adli yönü tanımlanıp, adli tıp açısından vertigoya bakış sunularak, vertigolu hastanın objektif klinik ve adli tıbbi değerlendirmesinin önemi vurgulanmaktadır.

Anahtar Sözcükler: Baş dönmesi/tanı; adli tıp; fizik muayene; duyu bozuklukları; vertigo/fizyopatoloji; vestibüler hastalık/komplikasyon.

FORENSIC MEDICINE AND THE LEGAL SYSTEM

Every speciality in medicine can have forensic aspects at some time or another. The relationship is two-way, in that medical science can often assist the administration of justice, both in civil and criminal matters, whilts most branches of medicine can themselves become the objects of legal scrutiny when issues of malpractice arise. Doctors become involved in legal actions as "professional witness" or "expert witness". Quite often the same medical witness may give both professional and expert opinion in the same case. Truth, or the nearest reasonable approach to it that is possible from what is observed, is the sole aim. Vagueness and theory have no place in forensic medicine and the doctor who quite properly says that he does not know or feels inadequately qualified to advise, acquires more respect than one who "ventures and opinion".[1]

THE LEGAL SYSTEM

Though there is considerable national variation in procedure, the basic pattern of legal system is similar. Criminal law concerns offences which are con-

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sidered to be against the general publics interest. Offences against the person, against property, against public safety, against the security of the state and many others, come under criminal law. Civil law concerns a dispute between two individuals or parties, rather than the state. The dispute may be over negligence, contract, debt, libel or slander. In a civil action, the result is not strictly a penalty but financial compensation which is designed to restore the position of the claimant to that which he possessed before the event.

Sometimes the same incident can give rise to both criminal and civil proceedings; e.g. a car crash can lead to a criminal presecution for dangerous driving (a public offence), as well as a civil action for damages for personal injuries suffered by someone as a result of the drivers negligence.

MEDICO-LEGAL VIEWPOINT OF VERTIGO

Dizziness and vertigo are umbrella terms covering a range of symtoms and one of the most common cardinal complaints encountered in the practice of general medicine.[2-4] Vertigo is one of the types of dizziness with disequilibrium, presyncope and lightheadedness.[5] Vertigo indicates a sensation of false movement generally described like a rotation but sometimes it can be described like a sensation of tilt. Instead, the word dizziness indicates a sensation of disturbed relation to surrounding objects in space with feelings of rotation or whirling characteristic of vertigo as well as non-rotatory swaying, weakness, faintness and unsteadiness characteristic of giddiness.[6] Vertigo, except for the mildest forms is usually accompanied by varying degrees of nausea, vomiting, pallor, and perspiration, indicating excessive activity in the autonomic nervous system.[2] The range of such symptoms from lightheadedness and vague disorientation to dsabling vertigo and gross imbalance are seen with or withouth other symtoms equally difficult to quantify, ie. Headache, mood alteration and concentration problems and labeled as different clinical situations or syndroms according to the etiology.[7]

Vertigo is difficult to assess because it is a subjective complaint that cannot be measured. Yet the underlying cause of this common symptom can range from psychogenic factors to inner ear disorders and life threatening central nervous system disease.[2] The patient's history and thorough otoneurologic evaluation are essential for identifying the spesific pathology behind the patient's complaints.[4] It may still be challenging and frustrating for the clinician with specialized facilities.

In a tertiary otorhinolaryngology clinics study, after performing a physical examination, pure-tone audiometry and electronystagmography, 67% of the vertigo patients discharged with a diagnosis and prescription for treatment. The other 33% of the patients whom the standart examination was unable to diagnose were referred to a multidisciplinary committee for re-evaluation.[8] It is reported from a tertiary referrall combined otolaryngology and neurology multidisciplinary clinic; after assessment of the formal otoneurologic examination and appropriate laboratory investigations, 13.3% of the patients had a diagnosis unknown and 9% were thought to be psychogenic.[9]

The medico-legal importance of vertigo causes: Underlying cause of vertigo may have forensic importance if it can give rise to criminal or civil proceedings.

Head injury or traumatic brain injury: Dizziness is a frequent and debiliating complication of head injury and accounts for increasing numbers of medicolegal claims.[7,10,11] Vertigo of the benign positional paroxysmal type is the commonest vestibular diagnosis in posttraumatic dizziness patients.[7,10] Numerous studies have attempted to quantify the incidence of neuro-otological abnormalities in patients with posttraumatic dizziness. Toglia et al.[12] found objective evidence of vestibular disfunction 61% of patients, while Wilson et al.[13] and Davies and Luxon[7] have reported respectively a 57% and 88% of neuro-otological test abnormalities following head injury reported for compensation purposes. Studies results provide strong evidence for an organic basis to dizziness after head injury, whether or not a claim for compensation or penalty is pending. Also, posttraumatic vertigo patients presenting for medicolegal purposes or for management of their vestibular symptoms show similar sex and age distribution, similar range of causes and severity of head injury.[7,10]

There is an inverse relationship between the severity of head injury and return to work for posttraumatic dizziness. Some patients seeking medicolegal compensation may consciously or subconsciously perpetuate their symptoms to improve

compensation awards. It is often stated that the termination of pending litigation resolves such cases.[7,10,13]

The characteristics of the neuro-otological abnormalities and the primary site of vestibular dysfunction (within central vestibular connections, within both central neural and peripheral labyrinthine elements and the within the labyrinth alone) associated with post-traumatic dizziness remain a subject of debate.

Iatrogenic and toxicologic causes: After inner ear surgery or brain surgery, dizziness or vertigo may be seen. Vestibular organs or central vestibular connections may be damaged because of the nature of the surgery or malpractice. Any case of unclear or atypical clinical presentation must arouse a suspicion of poisoning. Although pathognomonic findings are rare, there may nevertheless be an accumulation of signs and symptoms. Drugs of the aminoglycozide groups may produce toxic damage to the peripheral vestibular apparatus. Although toxicity is generally dose related, some patients develop labyrinthine damage after brief treatment with ordinary doses of these drugs, particularly if renal function is impaired.

Malingering: When patients present with syndromes we mistrust or misunderstand, clinician are often quick to make a determination of malingering. However, the use of malingering as a default diagnosis neglects a variety of clinical possibilities that may be relevant for treatment and forensic disposition.[14-15]

Researchers, as well as clinicians often conclude from such data that persons going through litigation typically exaggerate their symptoms and thus, may actually be malingering. Interestingly many researchers have not found differences in symptom presentation in litigans and non-litigans.[14-18]

Assessment of malingering or secondary gain can be quite problematic due to the definition of malingering that "the intentional production of false or grossly exaggerated physical or psychological symptoms motivated by external incentives such as avoiding military duty, avoiding work, obtaining drugs". Under some circumstances, malingering may represent adaptive behavior; for example feigning, illness while a captive of the enemy during war time.[16] Malingering should be strongly suspected if any combination of the following is noted:

1. Medico-legal context of presentation.

2. Marked discrepancy between the persons clinical stress or disability and the objective findings.

3. The presence of antisocial personality disorder.

The psychometric assessment of malingering and deception in individuals who allegedly suffered from subjective symptoms is probably the most complex aspect of the clinical forensic evaluation. It provides quidelines for making appropriate differantial diagnosis and specialist examination. It is to be considered a first step toward a practice model of neuropsychology that encourages the role of knowledge and clinical judgement in guiding the meaningful clinical interpretation of tests and measures.[14-18]

Dizziness and other vestibular disorders may develop only when the degree of deterioriation of the vestibular system exceeds the ability of the nervous system to compensate. If dizziness does eventuate, it can have profound psychological consequences particularly in terms of loss of confidence in independent activity, and may lead to the development of anxiety disorders.[19] Patients who perceive a greater handicap as a result of dizziness demonstrate greater functional impairment than patients who perceive less handicap from dizziness.[20]

Patients with unexplained medical symtoms are often referred to psychiatry with vague diagnoses of "somatization" or "hypocondriasis". Spesific complaints such as chronic pain, chest pain and dizziness are associated with the respective Axis I disorders such as depression, panic disorder, and anxiety disorders.[21]

Anxiety is a common symptom in vertigo patients.[22] The various vertigo syndromes should be differentiated according to organic or somatoform manifestations. Unfortunately, somatoform vertigo disorders are often not included in the differential diagnosis or be-latedly considered, which delays the diagnosis. This compounds the tendency of vertigo disorders to rapidly become chronic and frequently results in severe impairment of the patient's quality of life, even precipitating early retirement and incurring high costs for healthcare systems.[3]

In cases of complex vertigo disorders, early interdisciplinary cooperation is both helpful and essential during dignostic work-up. Mental status exami-

nation may give evidence of psychiatric or cognitive difficulties, which may affect the quality of the subjective data obtained from the patient.[20-22]

Insurance and worker's compensation claims: Some ınsurance contracts and worker's compensation law is to provide subsistence in lieu of salary for employees unable to work because of medical disability due to job-related incidents. Additionally, the employee's medical expenses are paid. In cases of permanent disability, the payments can be extended for life. All employers carry worker's compensation insurance, if there is a dispute, the contesting parties are usually the employee and the insurance carrier.

Worker's compensation laws cover most illnesses identifiable with the employment situation, not just traumatic accidents. The proof of a causal link between the employment of the illness or its exacerbation is often difficult, especially if the only symptom is vertigo or the other symptoms equally difficult to quantify.

Evaluation of disability due to vertigo and related conditions in workers compensation claims is frequently complicated by variables of the "system" encapsulating the employee-variables imposed by employer,insurance company, worker's compensation laws, doctors, the claimants family, and patterns of his culture. The clinical problem is to define which aspects of his symptom picture should be placed where on the continuum; primary illness, secondary gain, compensation, exaggeration, cupidity or malingering.[16]

Problems of casuality: The law seeks certainty. Did the accident job related incidents cause the plaintiffs present disability? If there were several "causes" what percentage of the disability was due to the accident?

Particularly in worker's compensation cases, the doctor is expected to grade the client-patient's disability according to a table of percentages. There is some useful guides which devised by an expert committee. These are the guides and the clinical and forensic evaluator may deviate from it, but adherence to it does enable the clinician to maintain a consistency in communicating his findings and conclusions. Sometimes some symptoms may not be in these guides, the similar symptoms or related debiliating conditions may be used.

Malpractice claims and vertigo: "Doctors are not insurers". However, all patients have the legal right to expect a satisfactory standart of medical care from their doctors, even though this can never mean that the doctor can guarantee a satisfactory outcome to the evaluation and treatment.[1]

When a patient can prove that he has suffered harm as a result of a doctor's failure to provide a reasonable standart of care, he is entitled to receive financial compensation. The object and amount of this compensation is to attempt to restore the patient financially to the position he would have been if the negligence had not occured, especially in relation to loss of earnings from employment. Where the negligence is serious, the state may also intervene as a matter of public policy, to bring a criminal prosecution against the doctor.

Before a patient can succeed in a civil action for negligence against a physician, he must prove that:

1- The doctor had a duty of care towards the patient (and)

2- That there was a failure in that duty of care (which)

3- Resulted in physical or mental damage.

Malpractise claims have escalated greatly in recent years. The object of compensation is to try to restore the patient to the state he was in before the incident, in financial terms, and to compensate for pain, suffering and loss of quality of life.

Practicing medicine successfully requires that errors in diagnosis and treatment be minimized. Malpractice laws encourage litigators to ascribe all medical errors to incompetence and negligence. There are, however, many other causes of unintended outcomes.[23]

Possible types of medical negligence in a patient with vertigo:

1. Delayed diagnosis, misdiagnosis or failure to diagnose.
2. Incorrect type or quantity of drugs.
3. Surgical problems and complications.
4. Failure to obtain informed consent to operation.
5. Failure to refer specialist opinion.
6. Failure to act on radiological an laboratory reports and test batteries.

7. Inadequate evaluation (Clinical and forensic) and professional misconduct.

8. Inadequate records.

Good dialogue with patients concerning informed consent, appropriate responses to medical or surgical maloccurrence or complications, good record keeping and the general practice of good medicine will keep doctors from malpractice claims.[24-27]

CONCLUSION

Clinical and forensic evaluation of vertigo emphasise the need for specialist neuro-otological investigation if abnormalities are to be identified and managed correctly. Milder vague presentations of vertigo should not be dismissed lightly and that persisting symptoms should be investigated fully to improve the quality of medical practice and avoid medico-legal problems.

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