Editorial

The challenge of dizziness

具挑戰性的頭暈

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Editor-in-Chief

In this issue, Lam et al presented "the epidemiology of patients with dizziness" from the Accident & Emergency Department of Prince of Wales Hospital in Hong Kong. This study essentially concurs with the findings of a similar study carried out in 1996 at the Pamela Youde Nethersole Eastern Hospital of Hong Kong, implying that there has been little change in the past decade.[1] "Dizziness" is a common presenting complaint and vexing problem in emergency medical practice. The term is vague, ambiguous and undefined. Though most of the time the underlying cause is benign, occasionally the underlying pathology may be sinister. Lam et al has rightly pointed out the need to differentiate and identify "serious" cases from the large pool of "benign" ones. Though this complaint may be unwelcome to emergency physicians, it is our duty to meet the challenge in order to lower morbidity and mortality.

Coincidentally, the Chinese word " 暈 " has nearly identical meaning as "dizziness", being an all inclusive term which can mean different symptoms ranging from the sensations of motion, floating, falling, spinning, fainting, blurring of vision, blackout, lightheadedness, giddiness, wooziness, unsteadiness, weakness, fatigue, malaise, anxiety to even seizure.[2] Symptomatically, dizziness can be classified into four types: (1) vertigo – a rotational sensation; (2) presyncope – a sensation of impending faint or loss of consciousness; (3) disequilibrium – loss of balance without head sensation and (4) miscellaneous – ill-defined or other sensation not matching the above.[3]

There is a long list of causes for "dizziness", including otological, neurological, ophthalmologic, cardiac, vascular, haematological, gastrointestinal, toxic, metabolic, endocrinological, systemic or even psychiatric disorders.[3] Broadly speaking, the aetiology can be classified as those with vertiginous and those with non-vertiginous symptoms. The former is more often otological or neurological, with potentially serious causes like space-occupying, demyelinating, or ischaemic lesions of the posterior fossa, while the latter may be more circulatory or systemic in nature, with potentially serious causes exemplified by dysrhythmia, acute myocardial infarction, adverse drug effects, and hypovolaemia including gastrointestinal bleeding and intra-abdominal bleeding such as ectopic pregnancy or even ruptured abdominal aortic aneurysm.[3-5]

Diagnostic evaluation of the dizzy patient rests largely upon a detailed history and an accurate physical examination, including provocative tests.[2] The medical history is by far the most important source of information in clarifying the exact meaning of the symptom of "dizziness", especially in differentiating vertigo from presyncope.[6] Subsequent inquiries will diverge accordingly (Table 1). Vital signs including blood pressure, pulse rate and rhythm, temperature

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Table 1. Examples for history taking in the dizzy patient

Symptom	***Vertiginous***	***Non-vertiginous***
Onset	Sudden, gradual	Acute, chronic
Palliation/provocation	Motion, position	Posture
Quality	Spinning, moving	Fainting, blurring of vision
Radiation	~	~
Severity	Mild, moderate, severe	Mild, moderate, severe
Time (duration)	Intermittent, persistent	Intermittent, persistent
Associated symptoms	Tinnitus, hearing loss, neurological defects	Chest pain, palpitation, abdominal pain, tarry stool, fever
Medication	Aminoglycosides, opiates, alcohols, anticonvulsants, tricyclic antidepressants	Antihypertensives, antiparkinsonians, anticholinergics, α-blockers, diuretics
Past medical illness	Head injury, neck injury	Diabetes, hypertension
Last meal/LMP	Last meal	Last meal/LMP
Events	As reported by patient	As reported by patient

LMP: last menstrual period

and respiratory rate should be taken routinely. Examination of the eyes and ears (including Rinnie and Weber hearing tests) and evaluation of neurological defects are essential in patients with vertigo or disequilibrium.[6] No evaluation of a patient with vertigo is complete without an assessment of nystagmus, spontaneous or provoked.[3,6,7] A liberal per rectal examination is good clinical practice.

Routine point-of-care testing of glucose and haemoglobin in all patients and electrocardiogram in patients aged 45 and older have been recommended.[4] As a rule of thumb, no patient with dizziness who is unable to walk recently should be discharged from the emergency department.

Dizziness provides a good example for the "complaint-based" or "symptom-based" approach characteristic of emergency medical practice, as discussed by Wai et al (again from the Prince of Wales Hospital) in their article "undergraduate emergency medicine training: past, present and future" in this issue.

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