Fits, faints and funny turns

A general diagnostic approach

BACKGROUND The patient presenting with a fit, faint or 'funny turn' can present a diagnostic dilemma for the general practitioner.
OBJECTIVE This article aims to provide an overview of the diagnostic approach to these 'episodes'.
DISCUSSION The key to diagnosis is to elicit a clear history focussing on the lead-up to the episode, a description of what took place and the events that took place after the episode. The patient's feelings, symptoms, circumstances and provocative factors give vital information.

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The relatively common problem presentation of a fainting attack, 'funny turn' or seizure usually represents an emergency in the community with significant emotional sequelae to the patient, their friends and family and witnesses. It is important to realise that the simple syncopal attack, once so common in outdoor school assemblies, is not readily recognised by members of the new generation.

When patients present with the complaint of a 'funny turn' it is usually possible to determine that they have one of the more recognisable presenting problems, such as fainting, 'blackouts', lightheadedness, weakness, palpitations, vertigo or migraine. However, there are patients who do present with confusing problems that warrant the label of 'funny turn'. The commonest cause of funny turns presenting in general practice is lightheadedness, often related to psychogenic factors such as anxiety, panic and hyperventilation.[1] Patients usually call this 'dizziness'. The issue of most concern with funny turns is that of misdiagnosis, so a proper and adequate history taking is of great importance.

Various causes of fits, faints and funny turns are presented in Table 1. A useful, simple classification is to consider them as:

- syncope
- seizures
- sleep disorders, eg. sleep apnoea, catoplexy, or
- labyrinthine.

The diagnostic approach

An approach to diagnosis should ideally follow the traditional method of history, examination and diagnosis. I favour a diagnostic model that considers probabilities and serious disorders that the general practitioner cannot afford to miss, and other aspects according to the diagnostic strategy model presented in Table 2.[2]

History

The clinical history is of paramount importance in unravelling the problem. A reliable eye witness account of the 'turn' is invaluable, as is the setting or circumstances in which the 'episode' occurred.

It is essential at first to determine exactly what the patient means by 'funny turn'. In the process of questioning, it is appropriate to evaluate the mental state and personal and social factors of the patient. It may be appropriate to confront the patient about feelings of depression, anxiety or detachment from reality. It is important to break up the history into three components:

- the lead-up to the episode
- an adequate description of what took place during the episode, and
- the events that took place after the episode.

Apart from the events, note the patient's feelings, symptoms, circumstances and provocative factors. Search for possible secondary gain, either conscious or unconscious.

Onset

A sudden onset may be due to cardiovascular causes, especially arrhythmias, which may include the more common supraventricular tachycardias in addition to the less common, but more dramatic, arrhythmias that may cause unconsciousness.

Other causes of a sudden onset include the various seizure disorders, vasovagal attacks and transient ischaemic attacks (TIAs).

Precipitating factors

Enquire about precipitating factors such as emotion, stress, pain, heat, fright, exertion, suddenly standing up, coughing, head movement or hypersomnolence:

- emotion and stress suggest hyperventilation
- fright, pain suggests vasovagal attack

Table 1. Selected causes of fits, faints and funny turns (excludes tonic-clonic seizure and CVAs)

Psychogenic (communication problems)
Conversion reactions (hysteria)
Culture/language conflicts
Fugue states
Hyperventilation
Malingering
Personality disorders
Phobia/anxiety states
Psychoses/severe depression

Other conditions
Transient ischaemic attacks
Complex partial seizure (temporal lobe epilepsy)
Tonic, clonic or atonic seizures
Primary absence seizure
Migraine variants or equivalents

Cardiovascular disorders
- arrhythmias
- postural hypotension
- aortic stenosis

Vertigo
Drug reaction
Alcohol and other substance abuse
Hypoglycaemia
Anaemia
Amnesic episodes
Metabolic/electrolyte disturbances
Vasovagal/syncope
Carotid sinus sensitivity
Cervical spondylosis
Sleep disorders
- sleep apnoea
- narcolepsy/cataplexy

Autonomic failure

Table 2. Diagnostic strategy model: fits, faints and funny turns

Probability diagnosis
Anxiety related/hyperventilation
Vasovagal syncope
Postural hypotension
Breath holding attacks (children)

Serious disorders not to be missed
Cardiovascular
- arrhythmias
- aortic stenosis

Cerebrovascular
- TIAs

Neoplasia
- space occupying lesions

Severe infections
- infective endocarditis

Hypoglycaemia

Pitfalls (often missed)
Atypical migraine
Cardiac arrhythmias
Simple partial seizures
Complex partial seizures
Atypical tonic-clonic seizures
Drugs/alcohol/marijuana
Electrolyte disturbances (eg. hypokalaemia)
Sleep disorders
Rarities
- atrial myxoma
- transient global amnesia

Seven masquerades checklist
Depression 4
Diabetes 4
– hypoglycaemia
Drugs 4
Anaemia 4
Thyroid disorder -
Spinal dysfunction 4
– cervical spondylosis
UTI

Is this patient trying to tell me something?
Highly likely
Psychogenic and communication disorders quite common in this setting

- standing up suggests postural hypotension
- exertion suggests aortic stenosis
- head movement suggests cervical spondylosis with vertebrobasilar insufficiency
- hypersomnolence suggests narcolepsy.

Associated symptoms

Certain associated symptoms give an indication of the underlying disorder:

- breathing problems and hyperventilation suggest an anxiety state
- tingling in extremities or tightening of the hand suggests anxiety/hyperventilation
- visual problems suggests migraine or TIA
- fear or panic suggests anxiety or complex partial seizure
- hallucinations (taste/smell/visual) suggests complex partial seizure
- speech problems suggests TIA or anxiety
- sweating, hunger feelings suggests hypoglycaemia
- related to food suggests migraine
- first thing in morning, consider 'hangover'.

Drug history

This requires careful analysis and includes alcohol intake and illicit drug use such as marijuana, cocaine and amphetamines. Prescribed drugs that can cause lightheadedness or unconsciousness are listed in Table 3. Sudden cessation of certain drugs such as phenothiazides and antidepressants can also be responsible for funny turns.

Table 3. Examples of drugs that may cause lightheadedness or blackouts

Alcohol
Peripheral vasodilators
• angiotensin II blockers
• glyceryl trinitrate
• hydralazine
• prazosin
Antiepileptics
Antihypertensives
Barbiturates
Benzodiazepines
Phenothiazines
Phenoxybenzamine
SSRI antidepressants
Tricyclic antidepressants
OTC anticholinergic compounds

Past history

The patient's past history may give an indication of the cause of the 'turn'. Such conditions include hypertension, migraine, epilepsy, rheumatic heart disease, atherosclerosis (eg. angina), vascular claudication, alcohol or other substance abuse, and psychiatric disorders. A history of childhood convulsions may predispose to the development of hippocampal sclerosis and temporal lobe epilepsy.

Diary of events

If the diagnosis is elusive it may help to get the patient to keep a diary of circumstances in which events take place, keeping in mind the importance of the time period before, during and postepisode.

The examination

Important focal points of the physical examination include:

- evaluation of the mental state, especially for anxiety
- looking for evidence of anaemia, alcohol abuse and infection
- cerebrovascular examination: carotid arteries, ocular fundi, bruits
- cardiovascular examination: pulses, blood pressure, heart (BP should be taken lying, sitting and standing)
- the cervical spine.

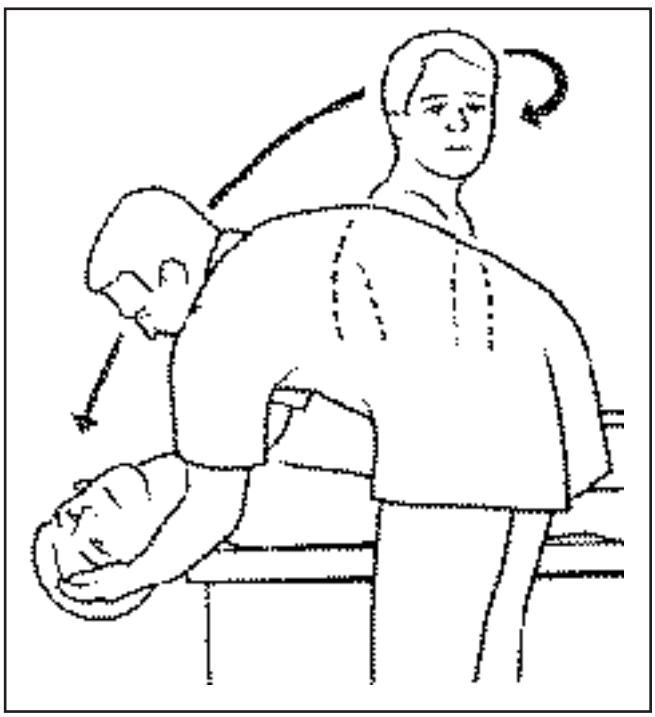

Figure 1. Dix-Hallpike manoeuvre

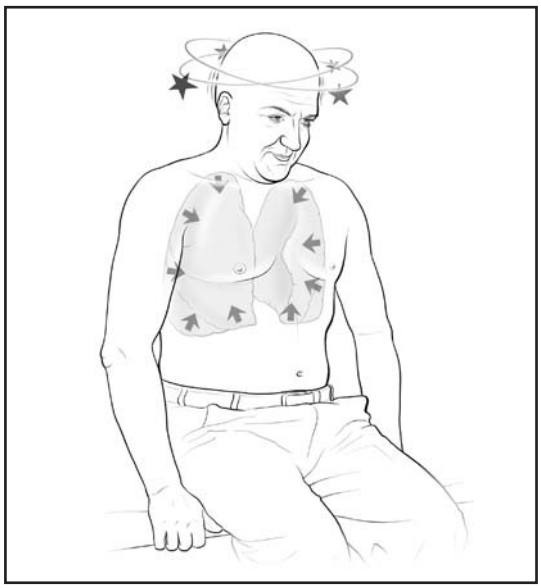

Figure 2. Valsalva manoeuvre

Various manoeuvres

Subject the patient to a number of manoeuvres to try to induce various sensations in order to identify the one that affects them. These should include: sudden assumption of the erect posture from a squat, spinning the patient and then a sudden stop, head positioning with either ear down – Dix-Hallpike manoeuvre (Figure 1), Valsalva manoeuvre (Figure 2), and hyperventilation for 60 seconds. Children can spin a toy 'windmill' while hyperventilating (blowing). Ask the patient: 'Which one mimics your complaint?'

Investigations

Depending on the clinical findings and working diagnosis, the most appropriate investigations can be selected from the following tests:

- full blood count: ? anaemia ? polycythaemia
- blood sugar: ? diabetes ? hypoglycaemia
- urea and electrolytes
- electrocardiogram (ECG): ? ischaemia ? arrhythmia
- 24 hour ambulatory cardiac (Holter) monitor: ? arrhythmia
- radiology/imaging
  - cervical X-ray
  - chest X-ray
  - carotid duplex Doppler scan: ? carotid artery stenosis
  - computerised tomography (CT) scan
  - magnetic resonance imaging (MRI) scan (available via specialist referral only)
- electroencephalogram (EEG) or video EEG; EEGs include those recorded with sleep deprivation, hyperventilation or photic stimulation
- positron emission tomography (PET) or single photon emission computerised tomography (SPECT) may show localised brain dysfunction when others are negative (available via specialist referral only).

Conclusion

The patient presenting with the problem of a faint, fit or funny turn can present a true diagnostic dilemma for the busy GP and occasionally a diagnosis may not be made. On the other hand, the cause may be quite simple or readily determined. A key to diagnosis is to elicit a clear history of the event or events and this is where an eye witness account can be crucial. Adverse drug reactions constitute an ever increasing cause of these problems especially in the elderly in whom the possibility of a vascular disorder particularly an arrhythmia or a cerebrovascular event should always be kept in mind.

SUMMARY OF IMPORTANT POINTS

- Adequate clinical history taking is essential.
- Note the events, patient's feelings, symptoms, circumstances and provocative factors.
- Subject the patient to a number of manoeuvres to try to induce various sensations.
- Investigations may include full blood count, X-ray, CT scan, or EEG.

Conflict of interest: none declared.

References

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2. Murtagh J. Common problems: a safe diagnostic strategy. Aust Fam Physician 1990; 19:733–742.

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