



A history for syncope should include the following:

Definition of the event:

- Where were you when it happened (crowded, warm)
- Was there a precipitating event (fear, blood, pain, instrumentation, prolonged standing)
- What was your position (supine, sitting, standing)
- Where you in hot surroundings
- Had you taken anything to eat or drink
- Had you taking any medication
- Was the syncope during exercise (it is important to define whether it is actually during the exercise, which suggests a cardiac cause, or immediately following exercise, which is commonly vasovagal)
- How long does it last
- Do you actually lose consciousness or just become lightheaded

Features of vasovagal syncope

There is a prodrome before losing consciousness:

- Lightheaded, dizzy
- Vision changes – blurred, black, tunnel
- Hearing changes – distant, strange quality
- Hot, cold, sweaty, clammy
- Nausea
- Pallor

During the loss of consciousness:

- Small twitching movements that start after the loss of consciousness
- Pallor

After recover consciousness:

- Nausea, vomiting
- Hot, cold, sweaty, clammy
- Fatigue, weakness (for anything from a few minutes to the rest of the day)
- Recurrence of the syncope or symptoms when resuming an upright posture.
- Pallor

NB:

Chest pain and palpitations often occur during the vasovagal prodrome. If the patient is normally able to exercise without chest pain then the chest pain is very unlikely to be cardiac in origin. The presence of palpitations presents a difficult problem for the paediatrician. If it is simply an awareness of a normal heart beat ("feeling your heart in your throat") then this can be taken as vasovagal. If the child is aware of a forceful and rapid praecordial pulsation (or even Title)

more convincing if the parent observes a forceful and rapid praecordial pulsation through the clothes), although this may still be vasovagal, cardiac referral is reasonable so that a typical event can be captured on ECG to exclude arrhythmia.

The most useful features in defining vasovagal syncope are:

NAUSEA
FATIGUE AFTER THE EVENT

Additional comments:

If there are features of vasovagal syncope in the history, the paediatrician is happy that there is no neurological pathology, the ECG is normal and the cardiac examination is normal then it is reasonable to accept the diagnosis of vasovagal syncope and to treat appropriately.

Checklist before accepting that the ECG is normal:

Is the QTc prolonged (if greater than 440ms refer to cardiology, although cardiologists would use 460ms as the cut-off for boys and 470ms for the cut-off for older girls, be sure to calculate manually measuring to ¼ of a little square ie 10ms accuracy, measure in lead II, do not accept the machine measurement)

Is there T wave inversion in leads V4-V6 (hypertrophic cardiomyopathy)

Is there ST segment elevation in V1-V3 (Brugada syndrome)

Is there partial right bundle branch block in V1-V3 (arrhythmogenic right ventricular dysplasia, but also commonly seen in normals)

Is there upright T in lead V1 (significant pulmonary hypertension)

Is there excessive R or S wave deflection in chest leads (LVH or RVH)

Is the PR interval normal (heart block)

Is there any suggestion of a delta wave (WPW)

Are there any ventricular ectopics (ARVD and catecholaminergic polymorphic VT are extremely rare in childhood but make it worth cardiac evaluation if VEs seen on resting ECG)

Features that merit a cardiac referral:

Family history of sudden death

Syncope during exercise or when supine

Sudden onset syncope with absence of any vasovagal signs

Palpitations preceding the syncopal event

Abnormal cardiac examination

Abnormal ECG

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