Syncope in a young lady secondary to autonomic failure from Guillain - Barre’ Syndrome

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Key points
1  Postural or exertional syncope can be secondary to autonomic failure which may precede the motor weakness in GBS
2  Recognise high risk patients who present with syncope and hence the need for admission and further monitoring
3  Urgent spirometry to check for vital capacity and a cardiac monitored bed for arrhythmia in suspected cases of GBS

Case Report
A 35 year-old-woman with a one week history of upper respiratory tract infection, presented to Emergency Department following an episode of syncope whilst climbing the stairs. The episode was preceded by a retrosternal discomfort and fluttering in her chest with shortness of breath. She reported a history of feeling dizzy on standing, with an awareness of a fast heart beat and excessive sweating for two days. The patient reported pins and needles in both hands and feet two days before the dizzy spells but no weakness. She had a past medical history of well controlled asthma, protein C deficiency and two previous DVTs for which she was on warfarin.

On examination she was anxious and sweaty with a sinus tachycardia. Her heart rate (HR) was noted to vary between 90 to 140 beats per minute. Her heart sounds were normal. No murmurs or bruits were heard. Her systolic blood pressure (SBP) varied between 100 and 180 mmHg. No postural drop was noted. Examination of peripheral and cranial nervous systems were normal.

Chest X-ray and urine analysis came back as normal as did blood results including full blood count, electrolytes, other biochemistry and vasculitic screen (ANA, ANCA, ESR, C3/C4 and rheumatoid factor). An electrocardiogram (ECG) demonstrated sinus tachycardia with a rate of 130, a normal axis and normal QT interval.

The patient was admitted to monitor for arrhythmia and changes in BP (noted the persistence of labile BP between 160 to 110 Systolic Blood Pressure (SBP), with frequent sinus tachycardia up to 130), sweating, and parasthesia persisted. An echo showed normal left and right ventricular structure and function with no valvular pathology. MRI brain came back normal.

Over 48 hours rapidly progressive weakness developed, grade 3 at arms and legs distally and absent reflexes with left lower motor neurone facial nerve weakness and bulbar palsy.

Spirometry showed a forced vital capacity of 1 litre (25% predicted). The case was discussed with the local tertiary neurological centre and a working diagnosis of GBS made. They advised performing an MRI of the spine to rule out structural lesion, giving rise to the neurological symptoms. This showed only small disc bulges at C5/6 and L5/S1 insufficient to explain her symptoms. Nerve conduction studies were not done as the patient was deemed too unstable and Neurologists where satisfied that clinically this was a classic case of GBS. She was admitted to the Intensive Care Unit (ICU).

On admission to ICU, she required mechanical ventilation for respiratory failure, during the first ten days she had frequent episodes of looking clammy and sweaty with dilated pupils, sinus tachycardia up to 140 and hypertensive at 170/100. These changes were brought on by nursing manoeuvres such as bathing, rolling as well as endotracheal suction. These episodes were short lived and the hypertension and tachycardia settled to her baseline of around 140/90 mmHg and 100 bpm. Lumbar puncture was performed in ICU and showed albuminocytologic dissociation of the CSF. The patient developed constipation for which NG laxatives and enemas were prescribed; this was also felt to be secondary to her autonomic dysfunction.

After 35 days and two doses of Intravenous immunoglobulin (IVIG) patient had successful respiratory wean and regained power (4/5 upper and lower limbs). She was discharged to the ward for ongoing rehabilitation. The parasthesia did not fully resolve and Gabapentin was prescribed, also she had episodes of tachycardia and in view of her asthma Calcium Channel Blocker was prescribed. Her blood pressure was controlled and no postural drop was noted.