

Induced vomiting for attention seeking and secondary gain: An unusual cause of pseudo-resistant hypertension

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Lesson

In patients with complex psychosocial history presenting with resistant hypertension, observed therapy should be implemented early on to avoid unnecessary investigations and delayed diagnosis.

Keywords

pseudo-resistant hypertension, malingering, factitious disorder

Introduction

Poor adherence to antihypertensive therapy is a major cause of lack of blood pressure control.¹ This is of particular importance in patients with psychiatric illnesses. However, patient's self-report is not always reliable, particularly in psychiatric patients. We report a case where self-induced vomiting as a means of attention-seeking behaviour resulted in dangerously high blood pressure with subsequent prolonged hospitalisation and unnecessary investigations. Increased vigilance in patients with psychiatric illnesses for deception and falsified illness should not be underestimated.

Case presentation

A 25-year-old woman, with hypertension, presented to the emergency department at our medical centre with a markedly elevated blood pressure. This was the second emergency room visit within four days of a prior visit for the same complaint. During her previous visit, she was discharged on bisoprolol 5 mg twice daily, telmisartan 80 mg daily, hydrochlorothiazide 25 mg daily, spironolactone 25 mg once daily and nifedipine 20 mg twice daily. Her uncle, who brought her to the hospital, reported severe hypotension (80/50 mmHg) with telmisartan so she has stopped taking it.

Her blood pressure upon presentation was 218/150 mmHg, heart rate: 90 bpm, temperature 36.7°C,

O₂ saturation 100% and a BMI of 29.7 kg/m². She reported dizziness, sudden onset headache, tinnitus, blurry vision, vertigo, nausea, fatigue and diffuse numbness. She reported compliance with a low sodium diet. She denied any chest pain, dyspnoea, haematuria, decreased urine output, seizures or muscle weakness. Review of systems revealed constipation, hirsutism, menstrual irregularities and intentional weight loss (37 kg over the past year). Her physical exam (including fundoscopy) was otherwise normal. Her laboratory tests including a complete blood count, chemistry profile, troponin and urinalysis were normal as well as an ECG and a computed brain tomography. Urine toxicology screen was negative for amphetamines and cocaine.

She was diagnosed with hypertension at the age of 23. Earlier in her disease course, her blood pressure was relatively controlled. However in the past year, she has had recurrent emergency room visits for elevated blood pressure. She suffers from major depressive disorder which started after she lost her mother secondary to ruptured brain aneurysm three years prior to her current presentation. She was also diagnosed with anxiety and was recently started on escitalopram 10 mg once daily with weekly psychotherapy sessions.

She has a positive family history of hypertension, chronic kidney disease, ruptured brain aneurysm in her mother and cardiovascular disease in her father.

Her psychosocial history is complex. She lives with her father whom she describes as being abusive to her mother. She is close to her mother's family, but she describes them as overprotective and they can be in total charge of her life. She doesn't smoke, drink alcohol or use illicit drugs.

Investigations

During her recurrent prior admissions for uncontrolled hypertension, she underwent a battery of

tests. A plasma aldosterone/renin ratio was normal at 7. Work-up for pheochromocytoma with 24 hour urine collection and plasma levels of metanephrines, normetanephrines and catecholamines (adrenaline, noradrenaline and dopamine) was negative. A contrasted CT abdomen did not reveal any masses. Her kidney ultrasound showed normal sized kidneys. Duplex of her renal arteries revealed normal resistive indices with 0.58 on the right and 0.64 on the left. The doppler waveforms showed a sharp systolic rise and the acceleration values were within normal limits excluding the possibility of a haemodynamically significant renal artery stenosis. Her cardiac echocardiogram showed a normal left ventricular mass index of 70 g/m^2 , normal left ventricular size and wall thickness, left ventricular ejection fraction of 65–69% and no aortic dilatation. A 24 hour urine collection for cortisol was found to be elevated at 225.6 mcg. The diagnosis of Cushing's disease was entertained and was ruled out by a negative dexamethasone suppression test.

Hospital course

The patient's blood pressure readings during her hospital stay are summarised in Figure 1. Given her hypertensive urgency upon presentation, the plan was to lower her blood pressure slowly. She was started on nifedipine 20 mg every 6 hour, carvedilol 25 mg twice daily and spironolactone 25 mg twice daily. She had a good response over the first few days.

On hospital day 6, she started having high blood pressure readings again. A diuretic was introduced.

Her blood pressure improved and we were planning to discharge her the second day when she started having high readings again up to 200/120 mmHg. At that point, an angiotensin-converting enzyme blocker was added. Given her high level of anxiety, the psychiatry team was consulted and she was started on anxiolytics. We emphasised to the nurses to make sure she was swallowing her medications. They were staying in her room for 5 min to make sure she was not pocketing her medications inside her cheeks. Recurrent readings of blood pressure measurements in all four extremities were equal. However, given the persistent hypertension, we elected to perform a CT angiography of her chest and abdomen to rule out aortic coarctation and renal artery stenosis secondary to fibromuscular dysplasia. It was negative for aortic coarctation; however, it showed beading of the left renal artery raising suspicion for fibromuscular dysplasia (Figure 2). Angiography of the renal arteries was performed under general anesthesia and both renal arteries were patent with no stenosis.

The fluctuations in her blood pressure readings were striking with recurrent high readings just prior to planned discharge. At this point, after we excluded all potential causes, we suspected that the patient was either throwing up her medications or using drugs that could raise blood pressure (diet pills, herbal medications). This suspicion became real when the patient was discovered to self-induce vomiting after medication intake as witnessed accidentally by her nurse. At this point, the apparent discrepancies were discussed with the patient who admitted to deliberately throwing up her antihypertensive drugs.

Figure 1. Blood pressure fluctuations during the hospital stay.

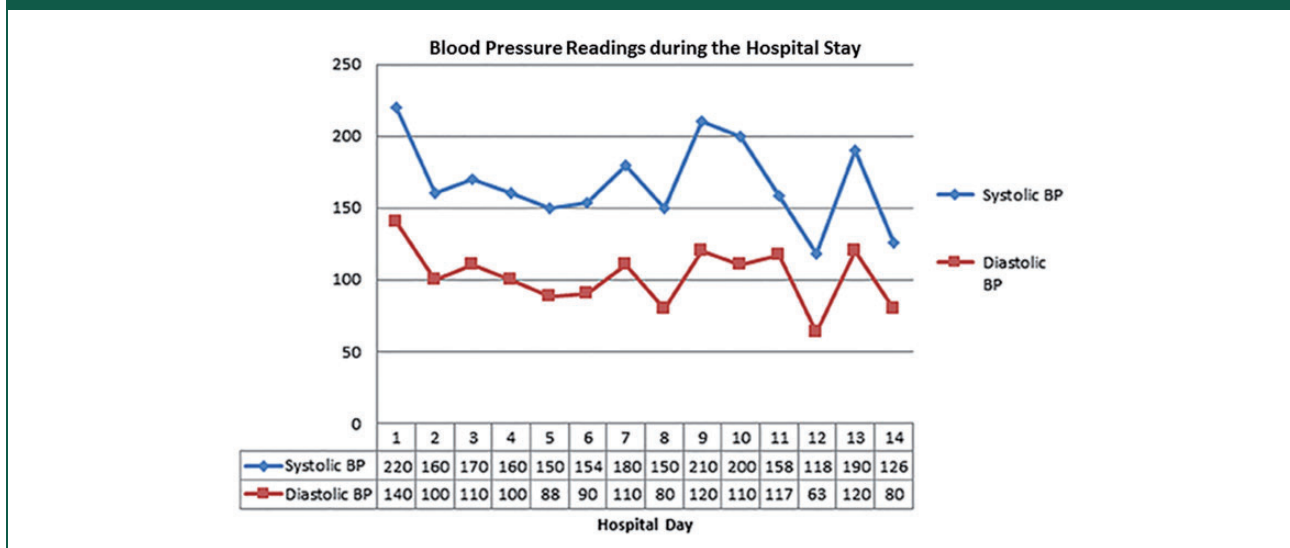


Figure 2. Computed tomography of the abdomen showing beading of the left renal artery suggestive of FMD.



Along with our psychiatrist, we diagnosed the patient as having attention-seeking behaviour which made her induce vomiting in order to keep her blood pressure elevated and remain under the care of hospital staff members.

Following thorough education about the importance of continued antihypertensive therapy, the patient was discharged with a normotensive blood pressure profile and was asked to closely follow up in clinic. She was discharged with the diagnosis of essential hypertension and depression.

Discussion

We reported a case of a 25-year-old woman with a complex psychosocial history and alleged treatment-resistant hypertension, who was self-inducing vomiting as a means for attention seeking and continued hospital stay. The diagnosis was reached after an enormous waste of time, resources and unnecessary invasive procedures, which were rather welcomed by the patient.

Hypertension is undertreated in patients with psychiatric illnesses.² The nature of the psychiatric manifestations makes it hard for the patients to adhere to their prescribed medications but also makes physicians less aggressive in achieving optimal blood pressure control in those patients. Several case reports of pseudo-resistant hypertension have been described in this population. Poor adherence is the most common cause in the outpatient setting. In the inpatient setting, pocketing of the medications inside the cheeks has been described.³ Munchausen syndrome, a subset of factitious disorders, where the affected individual used amphetamine to induce hypertension, for psychological gain, has also been described.⁴ To our

knowledge, this is the only case reported where patient would self-induce vomiting to continue to stay in the hospital which was a convenient environment for socialisation. The patient denied any suicidal ideations which did not justify having an attendant with her at all times. However, in retrospect, having a bed side attendant at all times early in her course might have shortened her hospital stay and prevented unnecessary and costly investigations.

Our patient had a strong malingering drive to induce vomiting after the nurse would leave the room, causing repeated measurements of elevated blood pressure despite adequate treatment. It is important to differentiate between malingering and factitious disorder, though this can be difficult sometimes, as it depends on the reason behind the behaviour as perceived by the treating physician. According to the criteria in DSM-5, factitious disorder requires the intentional production of physical or psychological symptoms or signs, with a psychological incentive to assume 'the sick role' with no external incentives.^{5,6} Malingering is rather a conscious decision aiming for external incentives or secondary gains (which in this case is prolonged hospitalisation and avoiding the stressful home environment).

The diagnosis of malingering is a double-edged sword. A true disease can be missed if a wrong diagnosis is made; on the other hand, excessive diagnostic testing and unnecessary and potentially risky procedures can result if malingering is not considered. It is extremely important to discuss the diagnosis with the patient and the family. Emphasis should be placed on treating associated psychological aspects including depression, avoiding confrontation, anger, care withdrawal or acting judgmental and focusing more upon stressors that the patient faces and less upon the deception and illness simulation.⁷

Take home messages

- In patients with complex psychosocial history presenting with resistant hypertension, observed therapy should be implemented early on to avoid unnecessary investigations and delayed diagnosis.
- A history of recurrent hospital admissions, repeatedly negative investigations and a behaviour welcoming invasive procedures should raise suspicion for factitious disorders or malingering.
- Having a bedside attendant at all times in this particular set of patients might help early recognition of abnormal behaviours performed as a means for attention seeking or secondary gains and resulting in delayed diagnosis.

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