

I am Sick, But I Do Not Know How to Complain

Parveen A and Chung WM*

Emergency and Trauma Department, Taiping Hospital, Taiping, Perak, Malaysia

Case Report

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***For Correspondence**

Wai-Mun Chung, Emergency and Trauma Department, Taiping Hospital, Taiping, Perak, Malaysia, Tel: + 60182127899.

E-mail: chungwaimun@yahoo.com

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ABSTRACT

Autonomic dysreflexia is a medical emergency in rehabilitation medicine. It is an acute syndrome of excessive, uncontrolled sympathetic output which can occur in patients who suffer from spine injury above sixth thoracic neurologic level. If left untreated, autonomic dysreflexia can cause seizures, pulmonary edema, renal insufficiency, myocardial infarction, cerebral hemorrhage and death. It requires immediate recognition and prompt management. Hence it is up most important for health care workers to be able to identify cases of autonomic dysreflexia. This case report aims to highlight the importance of identifying and managing in such patients.

INTRODUCTION

Autonomic dysreflexia is potentially dangerous clinical syndrome that develops in individuals with spinal cord injury at or above sixth thoracic vertebral level (T6). The most common causes of autonomic dysreflexia are bladder and bowel distension. In those patients, a strong stimulus below the level of injury will trigger imbalanced reflex sympathetic discharge. The stimulus triggers an afferent signal to the spinal cord. However, the impulses are unable to pass through the spinal cord lesion. This further activates a massive sympathetic reflex causing widespread vasoconstriction of the blood vessels below the level of injury resulting in hypertension and other signs of sympathetic stimulation including acceleration of heart rate and flushing [1]. If left untreated, autonomic dysreflexia can cause seizures, pulmonary edema, renal insufficiency and even death.

Management

The management of autonomic dysreflexia are comparatively straightforward despite being a potentially life threatening event. The upmost important management is early recognition of sympathetic symptoms. Patients may present with hypertension, tachycardia, headache, flushing and sweating. Initial steps require the patient to sit upright to produce an orthostatic drop in blood pressure. Tight fitting or restrictive clothing such as neck tie, tight belt and compression stockings, should be removed immediately [2,3].

Once done, the precipitant cause should be sorted. Bearing in mind, the most common causes are bladder distension and constipation. A careful review on patients' indwelling catheter and drainage bag is mandatory to rule out blockage. However, patients' without indwelling catheter due to scheduled intermittent catheterisation, palpation of the bladder is warranted to look for distention. Insertion of urethral catheter is indicated. If patients remain symptomatic, a rectal examination with gentle emptying is useful. This simple measures help relieve the symptoms.

CASE DESCRIPTION

A 67 year old gentleman, who previously suffered from paraplegia a year prior presented to emergency department (ED) experiencing profuse sweating, headache and chills and rigors that began while he was waiting a physiotherapy session. This was his first episode. Upon further questioning, it was discovered that he had his indwelling urinary catheter removed at a local clinic 2 days prior to symptoms developing.

Vital signs obtained in ED noted on elevated pulse of 120 beats per minute (BPM), oral temperature of 38°C (100.4 F) and blood pressure of 180/110 mm Hg. Upon physical examination, patient was conscious but appeared agitated, hands were cool

and clammy and cardiology and respiratory examinations were uneventful. Abdominal examination revealed a distended and a tender bladder. A prompt diagnosis of autonomic dysreflexia was made and management was carried out accordingly.

Fourteen French urinary catheters were inserted in view of autonomic dysreflexia with possible urinary tract infection. Patient's symptoms improved instantaneously post-catheterisation. Chills and rigors resolved within minutes, pulse rate reduced to 107 bpm and blood pressure reduced to 135/80 mm Hg. Patient felt better and comfortable post insertion urinary catheter.

A total of 550 cc foul smelling urine was drained and sent for urinalysis, revealed presence of urinary tract infection. Urinalysis showed presence of leucocyte (3+) and nitrite (2+). Intravenous Ampicillin-Sulbactam was given to patient and was admitted to general medical ward for continuation of care. His condition improved and was discharged uneventfully two days later with oral antibiotics Bactrim (Trimethoprim/sulfamethoxazole).

DISCUSSION

Autonomic dysreflexia often affects patients with thoracic spine injury as they are at risk of sepsis. Early recognition of autonomic dysreflexia in the above mentioned patient leads to a prompt and effective management. Initiation of antibiotics on top of early physiological management is crucial to treat sepsis, evidence by draining of foul smelling urine and results of urinalysis. This subsequently may reduce complications, morbidity and mortality. Bladder distension is a common precipitant of autonomic dysreflexia. It accounts for up to 85% of episodes. Causes of bladder distension are variety. Blocked or kinked indwelling urinary catheters top the list. Simple catheter flushing or replacing is adequate. Besides, urinary tract infection is common and is treated appropriate administration of antibiotics [1-3].

Gastrointestinal problems, such as fecal impaction and rectal distension, rank second in causing autonomic dysreflexia. Anorectal conditions such as haemorrhoids and fissures may also be precipitants [2] the management is rectal emptying.

CONCLUSION

Autonomic dysreflexia is not uncommon in daily practice. Prompt recognition and treatment are essential to prevent unnecessary complications. It is wise to introduce documents regarding previous experience in autonomic dysreflexia to ease future treatment. These documents (e.g. cards) can include common warning signs (rise in blood pressure, pounding headache, flushed and clammy skin and anxiety), common causes of autonomic dysreflexia (bladder and bowel distension, pressure sore) and treatment (relieving the precipitant causes). These documents can function as a medical alert to relevant medical professionals. This is imperative as patients have lost their neurological functions and are unable to complain.

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