Case Report

An Unusual Case of Defecation Syncope

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Abstract

Syncope is a common cause for emergency room visitations. The common attributable causes are cardiac or orthostatic factors in a majority of cases; however, situational syncope is a lesser known phenomenon and infrequently described in the literature. Here, we present an unusual case of a 55-year-old woman with recurrent hypotension and bradycardia related to defecation due to an unexpected cause.

Keywords: *Bradycardia, cervical fibroid, defecation, syncope*

Introduction

Syncope accounts for 3%–5% of emergency room visits, and defecation syncope (DS) is infrequently described in the literature.[1] DS describes the vasovagal response that occurs while defecating that results in a loss of consciousness.[2] The loss of consciousness results from bearing down to increase the pressure in the rectum. The increase in the pressure of the rectum calls for closure of the epiglottis, tightening the diaphragm, tightening the muscles of the chest wall, and stimulation of the parasympathetic nervous system.[2] The initial results of bearing down are rise in arterial pressure and bradycardia, followed by a rapid fall in blood pressure and the subsequent decrease in blood flow to the brain. This is a normal response. However, in certain patients, especially with a compromised cardiovascular system, the vasovagal response to defecation can put them at risk for an adverse cardiac event. Narrated here is an interesting case of DS due to an unusual cause.

Case Report

A 55-year-old P2 L2 widow presented to the emergency department after a syncopal episode during defecation. She had been complaining of significant constipation for the past 2 years and was, in fact, on regular laxative intake. She also had complaints of heaviness and pain in the pelvic region for the same duration. On arrival, she felt better and had no reminiscence of the event. There was no history suggestive of having angina, dyspnea, palpitations, or being in postictal phase. She had no history of diabetes mellitus or thyroid disease. Her blood pressure was 100/60 mmHg with regular pulse of 72/min. Her oxygen saturation was 96% on room air, and her electrocardiogram showed normal sinus rhythm. A troponin *t*-test was performed which was found normal. There was no significant postural change in her blood pressure or pulse upon standing. However, a surprise came up when she again had the urge to defecate and was given a bed pan, and upon straining, a huge mass was expelled through the vagina spontaneously, and the patient again went into shock. The patient was resuscitated with intravenous fluid and atropine, and a gynecological call was initiated. On local examination, a huge irregular mass of size 20 cm × 17 cm × 10 cm was seen arising from the anterior lip of the cervix by a short pedicle of about 2" [Figure 1]. On per vaginal examination, the uterus was bulky with free fornices and minimal bleeding was found. A uterine sound could be negotiated through the os into the uterine cavity, thereby ruling out chronic inversion [Figure 2]. A pelvic ultrasonography revealed multiple intramural fibroids with normal adnexa and a huge cervical fibroid. The patient was subsequently posted for surgery after complete investigative workup. She underwent vaginal polypectomy, total abdominal hysterectomy, and bilateral salpingo-oophorectomy using an abdomino-perineal approach. Postoperatively, she was relieved of constipation and was discharged on the 10th day in a healthy state.

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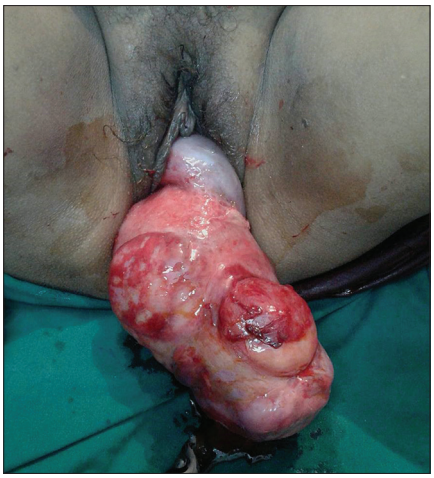

Figure 1: Clinical photograph showing a huge cervical fibroid which was expelled when the patient strained for defection

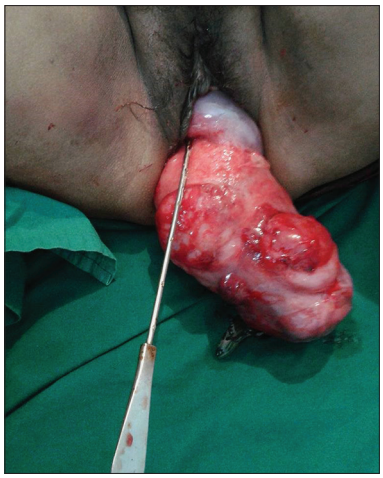

Figure 2: Clinical photograph showing the cervical fibroid with uterine sound that can be seen negotiating through the os

Discussion

Defecation is a rare but an important cause of syncope, especially in the elderly population who are more at risk of constipation. There are several potential causes of constipation which include reversible causes (such as pelvic mass causing pressure symptoms) and nonreversible causes (such as neurological or endocrine diseases).[3] DS is a phenomenon that is more common in women and may take years to get appropriately diagnosed.[4,5] DS may be a clue to more serious underlying pathology and should not be overlooked as it goes underreported owing to patient's fear of embarrassment.[3] In a case series of twenty patients with DS, it was reported that half of the patients with "unknown cause" for syncope had hypothyroidism, panhypopituitarism, or co-existing diseases such as diabetes and systemic lupus erythematosus.[6] Correcting any underlying cause or treating comorbid conditions is reported to be the mainstay of therapy.[3] In our case, the comorbid condition was a huge cervical fibroid causing chronic constipation and was interestingly leading to recurrent hypotension and bradycardia related to defecation.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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