Postoperative Posterior Reversible Encephalopathy Syndrome after Coronary Artery Bypass Surgery

Sir

A 45-year male, diagnosed case of diabetes and hypertension for 5 years, was admitted under cardiology services for three-vessel coronary artery disease and planned for coronary artery bypass surgery (CABG). He was a chain-smoker and *niswar* (a chewable form of tobacco) addict. His surgery was uneventful, and he remained vitally stable till sedation was continued, on the first post-operative day. When he was extubated the next morning, he responded well till evening, but then he became lethargic and started complaining of visual impairment. At that time, his blood pressure (BP) was 200 mm Hg (systolic) and his heart rate was 115 beats/minute. Sodium nitroprusside was started. On examination, eye movements were normal, visual acuity decreased to hand perception and light reflex was intact. MRI brain facility was not available, so CT of head was done which was normal. His BPs were vigilantly controlled and he received a single dose of solumedrol (250 mg) intravenously. The next day, his vision started to improve. He was stepped down to the ward and later discharged. On postoperative day 11, the patient landed in the emergency with multiple episodes of generalised tonic-clonic seizures. The patient was immediately given benzodiazepine and after 5 minutes of continuous activity, he was loaded with Valproate 20 mg/kg, intubated, and sedated in the emergency room as he was in status epilepticus. MRI of brain showed oedema involving the white matter of the left occipitotemporal lobe (Figure 1). These findings were suggestive of vasogenic oedema and are pathognomic for the posterior reversible encephalopathy syndrome (PRES). A lumbar puncture was done to rule out infective aetiology which was normal. EEG showed theta-delta slowing. He received antibiotics in the beginning which were later stopped. His sedation was slowly tapered down with EEG correspondence. His condition improved in three days and was sent to the ward for further observation. After 15 days postoperatively, the patient started giving appropriate response with no residual deficits. Given the clinical presentation and imaging results of the patient, the diagnosis of PRES was made. Anticonvulsant medication was taken to address the symptoms, and BP levels improved quickly.

This case serves as a reminder of the significance of taking PRES into account in postoperative patients with uncontrolled hypertension. The case involved a middle-aged man who was addicted to *niswar* (a type of chew tobacco), had uncontrolled hypertension, and had poor adherence to anti-hypertensives. His angiographic findings revealed significant coronary artery disease. In this case, they prompted an early CABG decision. Although the procedure went without incident, he had a dramatic spike in BP afterward. According to the literature, the sternotomy-related pain symptoms, which may be severe, and worry and anxiety related to the results of the surgery are further contributors to rising BP. We think that maintaining pain control is important for all postoperative patients. A risk factor for PRES was the persistent hypertension that was brought on by inadequate postoperative pain management in this person. With appropriate pain management, it might have been prevented. To avoid the onset of PRES, all surgical patients undergoing general anaesthesia, especially those with a low risk of complications, should be admitted to a postanaesthetic care unit for routine vital sign monitoring and sufficient postoperative pain treatment. There are some unusual aspects to the case being discussed, such as the fact that the patient experienced vision loss soon after the operation. Then, when his BP went down, his vision began to get better. He then presented with status epilepticus a few days later. Afterward, the anti-epileptics were given. His symptoms improved significantly, denoting a reversible aetiology. He was sent home in a walking condition. This case underscores the importance of considering PRES as a potential complication in patients who have undergone CABG and who present with symptoms such as those seen in this patient. It also highlights the importance of prompt diagnosis and management, as PRES can result in significant neurological morbidity and mortality, if left untreated.

![Figure 1 (a,b): FLAIR hyperintense signals in the left parieto-occipital region.](image)

**PATIENT’S CONSENT:**
Informed consent had been obtained from the patient.

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The authors declared no competing interest.

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SZ: Wrote and reviewed the manuscript.
MZ: Wrote the manuscript.
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**REFERENCES**


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