

Posterior reversible encephalopathy syndrome (PRES) in a case of gastrectomy with no comorbidities

Dear Editor,

We present a case of a 55-year-old female, weighing 31 kg with no previous co-morbidities complicated with PRES after subtotal gastrectomy. She was admitted with abdominal pain since six months, with increased nausea and vomiting since two months. Ultrasonography, Upper Gastrointestinal Endoscopy and Contrast Enhanced Computerized Tomography whole abdomen suggested a mass in stomach. Her hemoglobin was 8.2 g/dl and

other investigations were normal. She underwent subtotal gastrectomy under general anesthesia and epidural analgesia. In the intra-operative period lasting five hours, the blood pressure (BP) was 90–110 mmHg systolic and 55–65 mmHg diastolic except four episodes of hypotension (Mean Arterial Pressure \leq 50 mmHg) treated with aliquots of phenylephrine 10 mcg. She was extubated and shifted to Critical Care Unit (CCU). On receiving in CCU, her BP was 190/100 mmHg and oxygen saturation 98%. She was unable to recognize her family and irritable but pain free. BP remained high for next five hours (\sim 180/100 mmHg) despite antihypertensives and thereafter subsided to preoperative levels. On 1st postoperative day (POD), patient developed headache and bilateral vision loss with mild slurring of speech without any focal neurological deficit (FND). Ophthalmological examination was normal. Non Contrast CT scan head was done which was normal for her age.



Figure 1: Coronal view of MRI brain showing bilateral occipital, parietal cortex, and cerebellar hyperintensities on T2/FLAIR

On 2nd POD, she had an episode of altered sensorium. Seizure/acutely raised intracranial pressure (ICP) was suspected and antiepileptics, steroids and hypertonic saline were administered. There was no FND post the episode. Pupils were equal in size and reactive to light with normal power in all four limbs but the patient was unable to count fingers and make eye contact while replying to a query. On the 3rd POD, patient became conscious and oriented with GCS of 15/15. On 4th POD, Magnetic resonance Imaging (MRI) brain was done which revealed hyperintensities in bilateral occipital and parietal regions on T2 FLAIR/DWI images extending into both cerebellar hemispheres, mostly involving the white matter, suggestive of PRES [Figures 1 and 2]. On 5th POD, patient regained her vision and was shifted out of CCU on 9th POD.

PRES presents with rapid onset of symptoms including headache, seizures, altered consciousness, and visual disturbance.^[1,2] It is often, but not always, associated with acute hypertension.^[1,2] Common etiologies are hypertension (HTN) with acute rise in blood pressure (>180/100), pre-eclampsia/eclampsia, immunosuppression, autoimmune diseases and uremia.^[3,4] If promptly recognized and treated, it usually resolves within a week.^[2] Our case has a unique presentation that the patient had none of the above pre-existing comorbidities, yet landed up with PRES.

The commonest hypothesis for PRES relates to hypertension, causing loss of cerebral autoregulation, resulting in a compromised blood brain barrier leading to vasogenic edema.^[5]

In our patient, acute transient postoperative hypertension in a previously normotensive patient may have resulted in development of PRES.

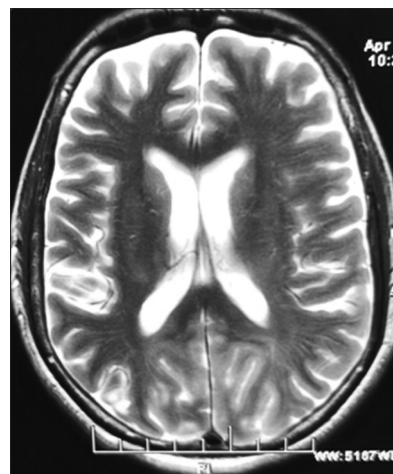


Figure 2: Axial view of MRI brain showing bilateral occipital, parietal cortex, and subcortical hyperintensities on T2/FLAIR

Our case enlightens that all patients developing unexplained headache, visual loss, altered sensorium or seizures in the postoperative period, in a background of acute hypertension should be suspected of PRES and immediately undergo neuroimaging, so that early intervention may reverse the syndrome soon.

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.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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Access this article online	
Quick Response Code:	Website: https://journals.lww.com/joacp
	DOI: 10.4103/joacp.JOACP_222_20

How to cite this article: Sashank A, Shingade GU, Yadav M, Singha SK. Posterior reversible encephalopathy syndrome (PRES) in a case of gastrectomy with no comorbidities. *J Anaesthesiol Clin Pharmacol* 2022;38:504-6.
Submitted: 11-Oct-2020 **Accepted:** 22-Mar-2021 **Published:** 21-Feb-2022
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