International Journal of Science and Research (IJSR)
ISSN: 2319-7064
SJIF (2022): 7.942

Postpartum Seizures - Clinical Acumen Matters - A Case Report

Dr. Deepthy Balakrishnan[1], Dr. Nivetha Sampath[2]

[1]MS, MRCOG, Associate Professor, Department of OBG, AIIMS, Bhubaneswar
Email: *obgyn_deepthy[at]aiimsbhubaneswar.edu.in*
Mobile: 9446439373
0000 - 0001 - 6645 - 261X

[2]MBBS, Junior Resident, Department of OBG, AIIMS, Bhubaneswar
Email: *nivethasampath96[at]gmail.com*
Mobile: 9629334643
0009 - 0000 - 7738 - 1815

Abstract: ***Postpartum seizures can occur due to various causes. When seizures occur in the postpartum period, they should be treated as postpartum eclampsia unless proven otherwise but should rule out other conditions that can be life - threatening. We present a case of intraperitoneal bleeding, which was misdiagnosed and managed as eclampsia, which highlights the need to discuss the differential diagnosis of seizures in the postpartum period.***

Keywords: Postpartum seizures, eclampsia, intraperitoneal bleed

1. Introduction

Postpartum seizures can occur due to various causes [1]. New onset seizures in the postnatal period can be due to eclampsia, metabolic conditions like hypoglycemia and hyponatremia, traumatic brain injury, transient ischemic attack or cerebrovascular accident, intracranial or subarachnoid hemorrhage, meningitis or encephalitis, alcohol withdrawal or withdrawal of drugs like benzodiazepines or barbiturates [2]. Rarely, epilepsy can present for the first time in pregnancy [3]. Amniotic fluid embolism is also a cause of seizures where the woman presents with other associated symptoms of dyspnoea and DIC [4]. According to WHO, one of the major complications that account for nearly 75% of all maternal deaths is preeclampsia and eclampsia [4]. When seizures occur in the postpartum period, it should be treated as postpartum eclampsia unless proved otherwise. It is important for clinicians to have another differential diagnosis in mind when encountering postpartum eclampsia. We present a case of intraperitoneal bleeding, which was misdiagnosed and managed as eclampsia, which highlights the need to discuss the differential diagnosis of seizures in the puerperium.

2. Case Report

A 25 - year - old para 2 female was referred to us with a diagnosis of postpartum eclampsia 19 hours after a cesarean section. She had an uncomplicated antenatal period and no medical illness in the past. She had undergone an elective cesarean section as she had not consented to the trial of labor after a cesarean section. It was informed to us that the woman had two episodes of seizures 14 hours after the cesarean section. It was mentioned in the referral letter that the woman had a high BP recording of 160/ 90 mm of Hg after seizures, and a loading dose of $MgSO_4$ was given to her.

At the time of admission, the woman was conscious and had tachycardia, tachypnoea, and hypotension. The reflexes were normal, with no signs of DVT. The abdomen was mildly distended with a contracted uterus and no excessive bleeding from the vagina. As her clinical findings did not correlate with features of eclampsia, other causes of seizures were taken into consideration. Intraperitoneal bleed was suspected, and ultrasound revealed hemoperitoneum. Laparotomy was done. There was a hematoma of 6* 6 cm on the incision site (figure 1) and broad ligament on both sides with a hemoperitoneum of 1.5 liters. The uterine incision was reopened and sutured. Hematomas were evacuated, and hemostasis was achieved. (figure 2) The woman received 11 units of blood and blood products and required inotropic support in the immediate postoperative period. She had elevated liver enzymes and a deranged coagulation profile, which improved with supportive care. There was no proteinuria, or further episodes of seizures, and blood pressure remained normal till discharge.

3. Discussion

When women who are not epileptic present with seizures in the postpartum period, the primary diagnosis, especially in low - resource settings, is postpartum eclampsia.1 Seizures can cause a transient increase in blood pressure; the woman can be drowsy due to a ictal state.3 These clinical features may lead to an error in the diagnosis, and other conditions which might present with similar clinical features can be missed. Deranged blood reports can also be confusing due to features of multiorgan dysfunction in both eclampsia and hypovolemia.

This case highlights the need for obstetricians to maintain a high index of suspicion and to rule out other life - threatening conditions in women presenting with seizures, especially in the postoperative period. In low - resource settings, there is a lack of skilled manpower and equipment, necessitating the need to give more importance to measuring and monitoring vital signs. The need for a well - written reference letter requires emphasis.

The delay in the diagnosis led to increased morbidity of the woman, which could have been prevented by early diagnosis and management.

4. Conclusion

This report provides insight to the obstetrician about the need to assess the broader clinical situation when approaching a patient with postpartum seizures.

Acknowledgments (If any): nil

Source of support: nil

References

[1] Dutta A, Tonkin T, Gelman W. Postpartum convulsions - - a diagnostic enigma. J R Soc Med.2006 Apr; 99 (4): 203 - 4.

[2] Kaur S, Garg R, Aggarwal S, Chawla SPS, Pal R. Adult onset seizures: Clinical, etiological, and radiological profile. J Family Med Prim Care.2018 Jan - Feb; 7 (1): 191 - 197. doi: 10.4103/jfmpc. jfmpc_322_16

[3] Ma GJ, Yadav S, Kaplan PW, Johnson E. New - onset epilepsy in women with first - time seizures during pregnancy. Seizure.2020 Aug; 80: 42 - 45. doi: 10.1016/j. seizure.2020.05.022.

[4] Haftel A, Carlson K, Chowdhury YS. Amniotic Fluid Embolism. [Updated 2024 Jan 10]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan - . Available from: https: //www.ncbi. nlm. nih. gov/books/NBK559107/

[5] WHO fact sheet on maternal mortality dated February 22nd 2023

[6] Jamadarkhana S, Law RC. Seizures in the early post - partum period: A diagnostic dilemma. Indian J Anaesth.2012 Mar; 56 (2): 183 - 5.

CARE Checklist of information to include when writing a case report

Topic	Item	Checklist item description	Reported on Line
Title	1	The diagnosis or intervention of primary focus followed by the words "case report"	✓ 1
Key Words	2	2 to 5 key words that identify diagnoses or interventions in this case report, including "case report"	✓ 1
Abstract (no references)	3a	Introduction: What is unique about this case and what does it add to the scientific literature?	✓ 1
	3b	Main symptoms and/or important clinical findings	✓ 1
	3c	The main diagnoses, therapeutic interventions, and outcomes	✓ 1
	3d	Conclusion—What is the main "take-away" lesson(s) from this case?	✓ 2
Introduction	4	One or two paragraphs summarizing why this case is unique (**may include references**)	✓ 1
Patient Information	5a	De-identified patient specific information	✓ 1
	5b	Primary concerns and symptoms of the patient	✓ 1
	5c	Medical, family, and psycho-social history including relevant genetic information	✓ 1
	5d	Relevant past interventions with outcomes	✓ 1
Clinical Findings	6	Describe significant physical examination (PE) and important clinical findings	✓ 1
Timeline	7	Historical and current information from this episode of care organized as a timeline	✓ 1
Diagnostic Assessment	8a	Diagnostic testing (such as PE, laboratory testing, imaging, surveys).	✓ 1
	8b	Diagnostic challenges (such as access to testing, financial, or cultural)	✓ 1
	8c	Diagnosis (including other diagnoses considered)	✓ 1
	8d	Prognosis (such as staging in oncology) where applicable	NA
Therapeutic Intervention	9a	Types of therapeutic intervention (such as pharmacologic, surgical, preventive, self-care)	✓ 1
	9b	Administration of therapeutic intervention (such as dosage, strength, ✓✓	NA
	10d	Adverse and unanticipated events	✓ 1
Follow-up and Outcomes			
Discussion	11a	A scientific discussion of the strengths AND limitations associated with this case report	✓ 2
	11b	Discussion of the relevant medical literature **with references**	✓ 2
	11c	The scientific rationale for any conclusions (including assessment of possible causes)	✓ 2
	11d	The primary "take-away" lessons of this case report (without references) in a one paragraph conclusion	✓ 2
Patient Perspective	12	The patient should share their perspective in one to two paragraphs on the treatment(s) they received	
Informed Consent	13	Did the patient give informed consent? Please provide if requested	Yes ☑ No ☐

Images

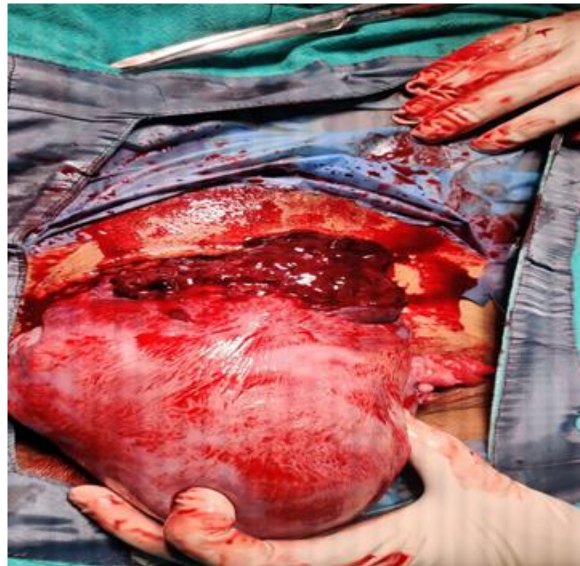

Figure 1: Uterine incision site hematoma

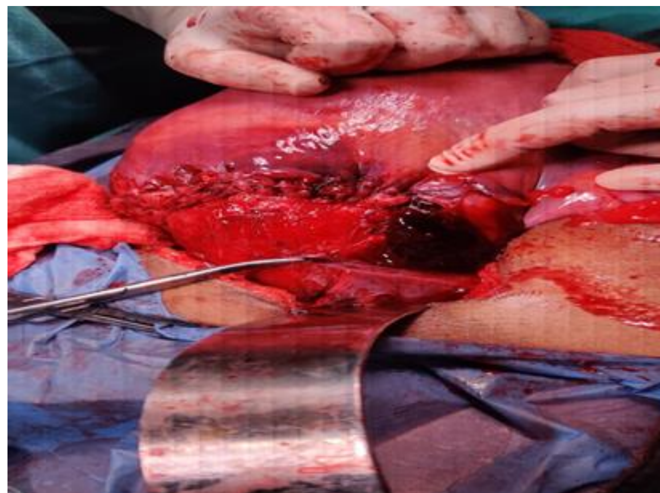

Figure 2: Uterine Incision after evacuation of hematoma with re-suturing of uterine incision