International Journal of Science and Research (IJSR)
ISSN (Online): 2319-7064
Index Copernicus Value (2016): 79.57 | Impact Factor (2017): 7.296

Reversible Cerebral Vasoconstriction Syndrome is a Uncommon Presentation of Early Onset Eclampsia causing ICH during Mid Pregnancy

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Abstract: ***Reversible Cerebral Vasoconstriction Syndrome is an infrequent presentation of early onset eclampsia causing ICH during mid-pregnancy. RCVS occurs due to sudden constriction of vessels supplying the brain. RCVS usually presents with symptoms of sudden severe headache (Thunderclap headache) & seizure. ICH is an uncommon manifestation of RCVS in mid trimester of pregnancy. We reported a case of 19 years old female who presented with RCVS which complicated as ICH in mid trimester of pregnancy. The clinician should be aware about this uncommon presentation of RCVS for early diagnosis & treatment.***

Keywords: Reversible cerebral vasoconstriction syndrome, Intracerebral hemorrhage, Early onset eclampsia

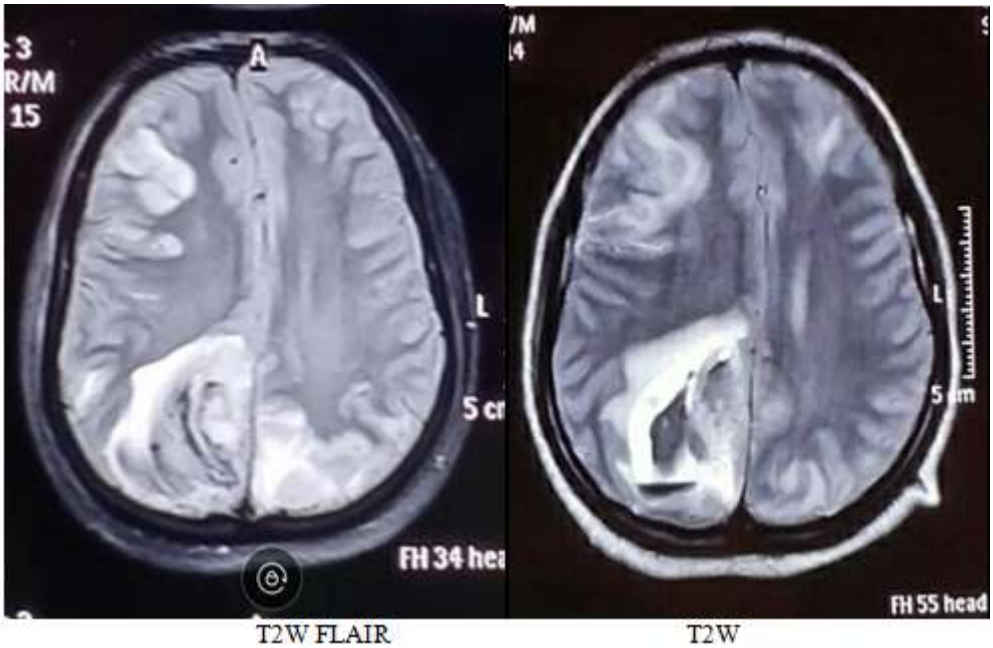
1. Introduction

Reversible cerebral vasoconstriction syndrome (RCVS) occurs due to sudden constriction of vessels supplying to the brain.[(1)] RCVS usually presents with sudden headache, sometimes accompanied by seizure. But in rare instances, it can also manifest as stroke or ICH.[(2,3)]

2. Case Report

A 19 years female with 6th month pregnancy presented with h/o headache, vomiting , 2-3 episodes of generalized tonic clonic seizures followed by altered sensorium. On examination BP was 140/90, she was drowsy, disoriented occasionally responded to verbal commands, pupils were bilateral symmetrical reacting to light, moving all four limbs, and her bilateral plantars were extensor.

Magnetic resonance imaging brain showed hemorrhagic cortical lesion in right occipito-parietal lobe with increased signal intensity in both cerebral hemisphere and basal ganglia.(Figure.1)



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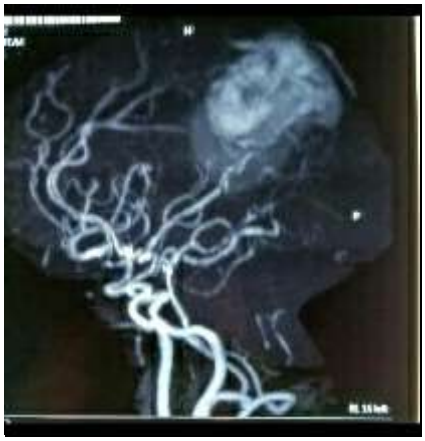
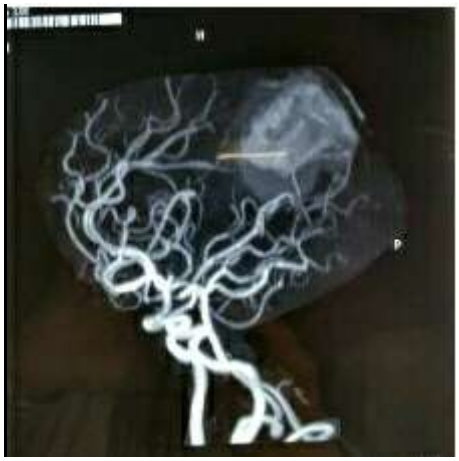
Magnetic resonance venogram was normal. Magnetic resonance angiography was showed tapering & thinning of small vessals. (Figure .2).



Repeat magnetic resonance angiography showed relaxation of blood vessels supplying to brain. (Figure 3)



Ultrasonography abdomen and Doppler showed single live fetus with vertex presentation , markedly reduced liquor and significantly reduced diastolic flow to umbilical artery for which gynaecologist opinion was taken & pregnancy was terminated.

Hemogram revealed (Hb- 12.8 gm/ dl ,total leukocyte count 22000/ cumm, platelet - 0.79 lakh /cumm) ,biochemistry showed (increased LDH 1800 U/L) ,urine analysis revealed proteinuria +++, CSF showed (< 10 cells , protein 200mg %, sugar -67 mg %, CSF ADA was normal (2.1U/L), with normal viral profile), Other investigations including RFT,LFT, immunological profile & anticoagulation profile was normal.

3. Discussion

In view of clinical features (H/o headache, seizure & altered sensorium), raised BP, proteinuria & imaging findings, possibility of early onset eclampsia was kept. Serum HCG level &USG was in accordance with 2nd trimester of pregnancy, so choreocarcinoma was excluded. In view of increased serum LDH & thrombocytopenia, a possibility of HELLP syndrome was also kept. Due to raised protein in CSF possibility of CNS vasculitis was also kept but her immunological profile was normal. The patient started recovering rapidly with a self limiting benign course, so possibility of CNS vasculitis was very unlikely. So finally patient was kept as early onset eclampsia complicated as RCVS induced ICH due to endothelial dysfunction. There was involvement of multiple vascular territories in bilateral watershed zone. Patient was treated with Nimodipine, antihypertensive, Antiepileptic, dexamethasone & intravenous fluid therapy.

Patient showed improvement in the form of regaining consciousness & was discharged in a stable condition.

4. Conclusion

ICH is an uncommon manifestation of RCVS in mid trimester of pregnancy. Early diagnosis &treatment may prevent this fatal manifestation.

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