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Case Report

A Case of Unusual Presentation of Transverse and Sigmoid Sinus Thrombosis in Puerperium

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Abstract

Cerebral vein thrombosis is an uncommon disorder in puerperium. Patient can present with various manifestations like headache, abnormal vision, or any of the symptoms of stroke such as weakness of the face and limbs on one side of the body, and seizures. We are presenting a case of primigravida with 37+2 Weeks Period of Gestation with Dichorionic Diamniotic twins with breech presentation. Post LSCS on Postoperative day 5. Patient presented with severe headache followed by seizure. MRI report came as transverse and sigmoid sinus thrombosis, managed successfully with heparin and mannitol. Patient was stable and was discharged on day 10

Keywords: Cerebral vein thrombosis (CVT); Inj Heparin; Lower segment caesarean section (LSCS); Magnetic resonance imaging (MRI); Seizure

Introduction

Obstetrical thromboembolic disease incidence is 0.13%, and it is an essential reason for maternal morbidity and mortality in developed countries, and the mortality rate is 10% despite the treatment [1]. In young to middle aged adults, CVT is much more common in women than men with a ratio of approximately of 3:1 [2]. Most of the cerebral venous thrombosis cases occur during puerperal period, especially in the first three postpartum weeks. Several physiological changes in coagulation system render pregnancy and puerperium prothrombotic states. Here, we are reporting a case of transverse and sigmoid sinus thrombosis in puerperium developed in the puerperal period due to its rarity and significance of its presentation and its treatment.

Case Report

19-year-old patient, primigravida with 37+2 weeks with DCDA twins with breech presentation, admitted to our hospital with c/o pain abdomen. Patient underwent c-section under SAB i/v/o first twin with breech. Intra op and immediate post op was uneventful. On POD 5, patient c/o severe headache followed by one episode of GTCS for 15 seconds. Frothing from mouth with uprolling of eyeballs was present. Not a known hypertensive. O/E patient was afebrile, Post seizure episode patient was conscious and oriented. BP was 160/100 mm Hg, SPO2 97%. Other systemic examination was normal. Her lab investigations revealed normal complete blood count, renal function test, serum electrolytes, liver enzymes coagulation profile urine analysis and ECG. Further investigation- MRI: Hypoplastic left tranverse and sigmoid sinus with luminal thrombus. Hence diagnosed as transverse and sigmoid sinus thrombosis in puerperium. Patient was treated with inj Heparin 5000 U SC QID -1 WEEK and injMannitol 100 ml iv Q 8th hourly- 3DAYS, T Levipil 500 mg BD-1 MONTH, syp glycerol 30 ml TID-3 DAYS. Injection Heparin was substituted for acetrom 3 ml, once INR was normal. Rest of her hospital stay was uneventful and discharged on POD 10.

- Before Treatment: Figure 1A-1B

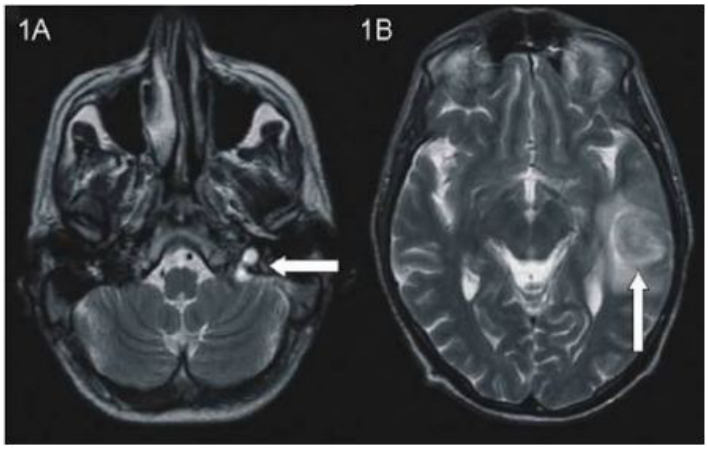

Figure 1A-1B: 1A -Thrombosis present in a transverse sinus. 1B-Thrombosis present in sigmoid sinus.

- After Treatment: Figure 2

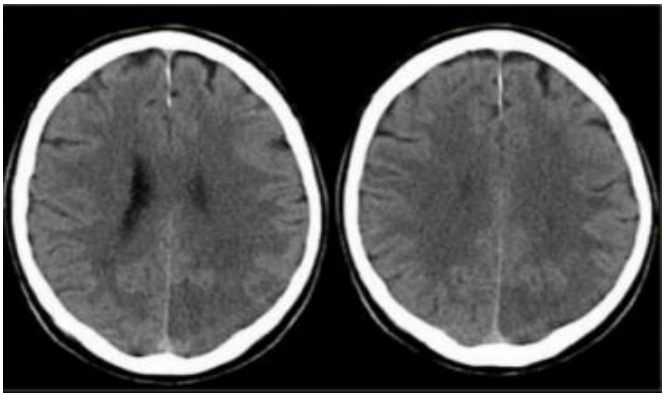

Figure 2: Post Heparinization MRI on POD 8- mild infarct in parieto-occipital lobe.

Discussion

According to Daif et al. cerebral venous sinus thrombosis has got a variety of clinical presentations ranging from headache to deep coma. The incidence is 7 per 1 000 000 9 Females are more commonly affected than males, with a ratio of 1.29:1. It presents more commonly among women in the 20-35-year age group.8 Pregnancy is a hypercoagulable state. CVT can occur during third trimester or in the first week of the post-natal period due to persistent hypercoagulable state. Cerebral vein thrombosis (CVT) is an entity which may cause problems during its diagnosis due to its wide clinical spectrum, and may have increased rate especially in puerperal period. Exact etiology is not known. There are various risk factors mainly dehydration during labour due to loss of blood, prolonged bed rest, local trauma, anaemia, pregnancy induced hypertension, infection. Caesarean section is an independent risk factor due to tissue damage which leads to decrease in protein C level [3]. Major clinical features of obstetric CVT are headache, focal deficits, seizures and mental status changes. Management of obstetric CVT includes supportive care, seizure control, measures to lower intracranial pressure, search and treatment of possible infection to prevent further thrombosis [4]. Supporting care includes dehydration should be corrected by IV fluids and then arrange for blood and blood products if necessary, seizure control mainly injection magnesium sulphate followed by Livipill, injection Mannitol to be considered to reduce intracranial pressure if there is an infection anti biotics is must, Anti-coagulation is the preferred treatment, for thrombosis [5,6]. Except Indians none have reported on anticoagulation specifically in obstetric CVT. Srinivasan et al. used heparin in uncontrolled fashion in 80s and noted that mortality was lower amongst heparin group [7]. Inj Heparin 5000 U sc and Inj Mannitol 100 ml Q 8th hourly is used

Conclusion

Obstetric cerebral venous thrombosis most commonly presents during the puerperal period, next to PRES and is a major cause of stroke in young women. Diagnosis of CVT is challenging due to its wide spectrum of clinical profile and need of high index of suspicion. Cerebral venous sinus thrombosis is a potentially life-threatening condition if it is undiagnosed. The diagnosis should be considered in all women presenting with neurological symptoms during pregnancy or the puerperium early diagnosis and early institution of therapy reduces the mortality of CVT in young females [8]. Prompt management is necessary to avert short and long term neurological sequel.

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