GLOBAL SCIENCE LIBRARY

CASE REPORT

Journal of Clinical Case Reports and Reviews

Cerebral hematoma as presentation of peripartum angiopathy

Walter Videtta[1*], Gustavo G Domeniconi[2] and Victoria Marquevich[3]

[1]Unidad de Cuidados Intensivos, Hospital Nacional Profesor A. Posadas, El Palomar, Buenos Aires, Argentina

[2]Unidad de Cuidados Intensivos, Sanatorio de la Trinidad San Isidro, San Isidro, Buenos Aires, Argentina

[3]Unidad de Cuidados Intensivos, Hospital Universitario Austral, Pilar, Buenos Aires, Argentina

Introduction

According to the literature, the incidence of Stroke during pregnancy is 34.2 per 100,000 deliveries. Mortality rate is 1.4 per 100,000 [1]. Among the frequently reported causes are Eclampsia, coagulation disorders, vascular anomalies, and less frequently, aneurysmalsubarachnoid hemorrhages. Subdural and intraparenchymal hematomas may also be diagnosed. However, up to 25% of lesions without defined etiology are reported among intracerebral hematomas [2,3]. Risk factors are, history of migraine, thrombophilia, preeclampsia, gestational hypertension andsome infections. In a systematic review, 43 patients were analyzed, mean age 30.7 years 33weeks (range 8-41). The Intraparenchymal Hematoma group (IHP) was the largest, with 22 cases (51.3%), followed by subarachnoid hemorrhage (34.8%), and subdural hematomas (11.6%). Of the 22 patients with IHP, 18 had no history of hypertension or maternal

Comorbidities, 18% of the cases were postpartum, 27% of the patients required some type ofneurosurgery, 68% of the patients died [4]. Regarding peripartumangiopathy, literature providing specific information is scarce. In fact,some cases are confused with another entity termed reversible cerebral vasoconstriction, with which it shares some diagnostic elements. In a recent study, 18 patients from three reference institutions are analyzed [5]. Mean age: 31 years, 33% nulliparous, 17% with autoimmune disorders, 47% are presented with proteinuria. As regards symptoms at presentation, there was a mean 5 days postpartum, Headache (89%), focal deficit (9.5%), visual alteration (44%), seizures (28%). The lesion is referred to as Hematoma (39%). Treatment included calcium channel blockers in 67% of cases. Final results were: complete recovery (50%). However, at least 4 deaths were reported. These data show it isa risky pathology, with significant residual lesions [6].

Case

We present a case of a postpartum patient. In the context of a mild infection of the post cesarean surgical wound, the patient developed a big left parenchymal hematoma compromising the cerebral trunk structures. She required decompressive surgery, intracranial pressure monitoring, neuro critical care and later rehabilitation [7-9]. Possible causes of the hemorrhage were explored, and angiography showed narrowing areas of variable diameter in both hemispheres, indistal regions not related to vascular malformation. Different studies were performed considering her history of Raynaud's Biochemistry ruled out systemic vasculitis or preeclampsia related disorders.

25yearsoldpatientadmittedon4/4/18withperipartumangiopathy related to recent cesarean, who required surgical treatment and neurocritical care. Patient was diagnosed with Primary Raynaud's at 15 years of age under hydroxychloroquine treatment and sjögren syndrome in 2016 with salivary gland with biopsy and with ocular tearing treatment. Video capillaroscopy was taken 7/27/18 in nonspecific pattern and laboratory tests was performed on 8/17/17. Patient was found with Cryoglobulins negative, FAN negative, Anti-DNA antibody testing-negative, Anti-Scl-70 antibodies-negative results. C3 and C4 are within normal ranges with first gestation. Cesarean due to lack of progress on March 26 and on April 2, erythema and pain in surgical wound (local cure and indication of Amoxicillin Clavulanate) were diagnosed. The patient was admitted presenting with the same symptoms along with fever.

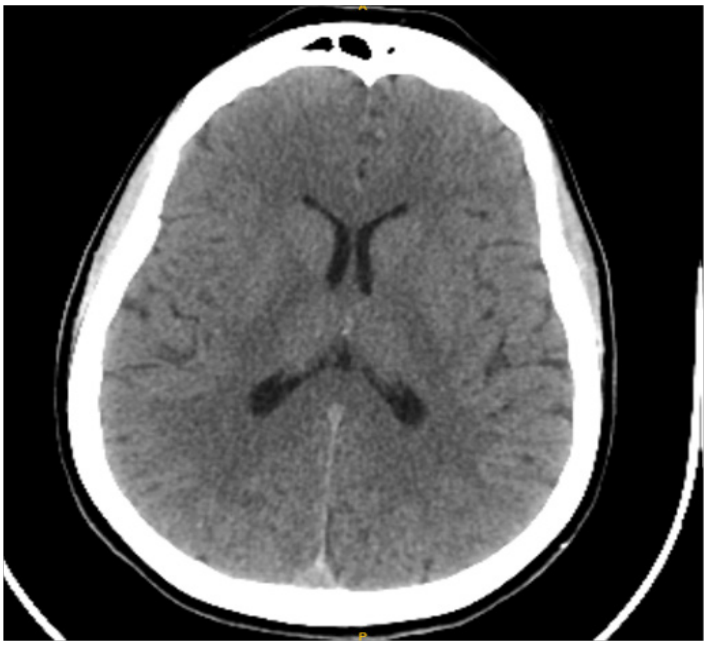

Figure 1. *Brain CT performed because of cephalea.*

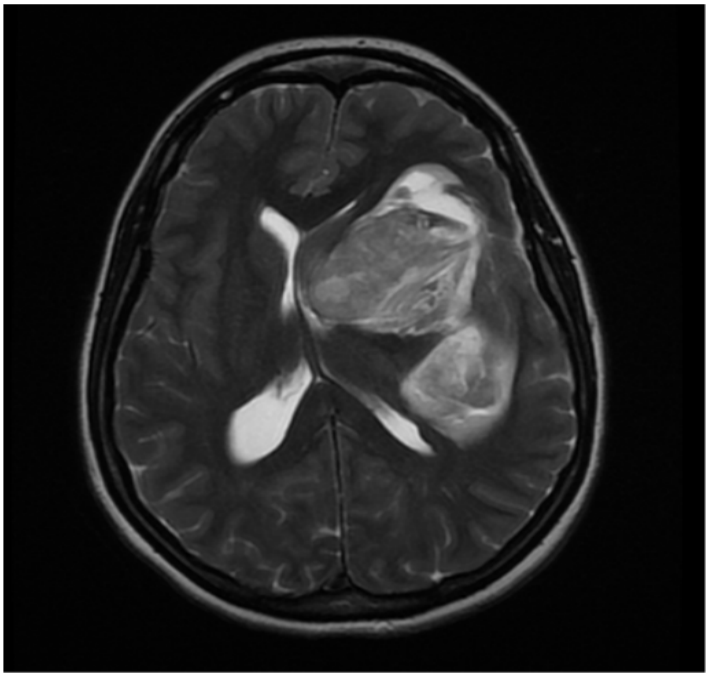

Figure 2. *MRI that show a big left hematoma that compromise middle line.*

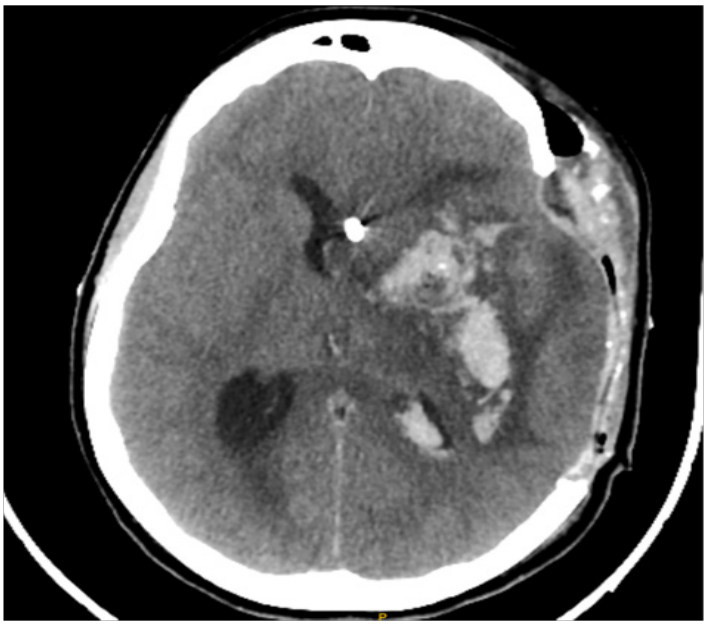

Figure 2. *MRI that show a big left hematoma that compromise middle line.*

Correspondence: Walter Videtta, Unidad de Cuidados Intensivos, Hospital Nacional Profesor A. Posadas, El Palomar, Buenos Aires, Argentina, Tel: +54-11-4469-9200; E-mail: wvidetta2@icloud.com

Rec: Oct 03, 2018; Acc: Oct 23, 2018; Pub: Oct 26, 2018

J Clin Case Rep Rev. 2018;1(5):25
DOI: gsl.jccrr.2018.000025

Normal gynecological ultrasound and soft tissue ultrasound was taken and found an echogenic heterogeneous image of particulate matter on 1/3 right, 12 × 8mm. It was drained and sent for culture, isolating SAMS. Treatment is indicated. And at 9 pm patient was suffering with severe headache, left side predominance and patient was to sent to normal brain CT scan (Figure 1) and at 9:30pm, patient was observed with fixed stare, expressive aphasia, involuntary movements of both upper limbs and anisocoria in the left eye. We proceed to protect the airways and admitted to ICU and at 10:30pm brain MRI was taken and that shown a big left hematoma (Figure 2) and left F-T-P craniotomy (Figure 3). Patient ICH score was reported as 4 with congestive brain. Evacuation of intracerebral hematoma was performed. A ventricular catheter is placed. Hemorrhagic fluid was 3 mmHg opening. Paralytic Mydriasis is confirmed. Presence of respiratory drive and tusigenous reflex, coagulation tests, proteinuria, LDH and uric Acid within normal ranges. Echocardiogram shows a structurally healthy heart. Good left ventricular function. Digital encephalic and neck vessel angiography: segmental narrowing of intracranial vessels, in both hemispheres and in anterior and posterior circulation. A tracheotomy is performed. A reflectic left Mydriasis persists, left Babinski corneal reflexes present. The patient is referred to a rehabilitation center.

In this case, etiology of hematoma could be demonstrated, as well as the complex evolution of the clinical condition.

References

1. James AH, Bushnell CD, Jamison MG, Myers ER. Incidence and risk factors for stroke in pregnancy and the puerperium. *Obstet Gynecol.* 2005; 106:509-516.
2. Liang CC, Chang SD, Lai SL, Hsieh CC, Chueh HY, et al. Stroke complicating pregnancy and the puerperium. *Eur J Neurol.* 2006; 13:1256-1260.
3. Fairhall JM, Stoodley MA. Intracranial haemorrhage in pregnancy. *Obstet Med.* 2009; 2:142-148
4. Ascanio L, Maragkos G, Young B, Boone M, Kaspe E. Spontaneous intracranial hemorrhage in pregnancy: A systematic review of the literature. *Neurocritical Care.* 2018.
5. Fugate JE, Ameriso SF, Ortiz G, Schottlaender LV, Wijdicks EF, et al. Variable presentations of postpartum angiopathy. *Stroke.*2012; 43:670-676.
6. Konstantinopoulos PA, Mousa S, Khairallah R, Mtanos G. Postpartum cerebral angiopathy: an important diagnostic consideration in the postpartum period. *Am J Obstet Gynecology* .2004;191: 375-377.
7. Hemphill JC, Greenberg SM, Anderson CS, Becker K, Bendok BR, et al. Guidelines for the management of spontaneous intracerebral hemorrhage: A guideline for healthcare professionals from the American Heart Association/ American Stroke Association. *Stroke*. 2015; 46:2032-2060.
8. Fung C, Murek M, Z'Graggen WJ, Krähenbühl AK, Gautschi OP, et al. Decompressive hemicraniectomy in patients with supratentorial intracerebral hemorrhage. *Stroke.* 2012; 43:3207-3211.
9. Muñoz J, Keough EA, Barrios JC, Fernández NJ, Dalorzo MG, et al. Primary decompressive craniectomy in neurocritical patients. A meta-analysis of randomized controlled trials, cohort and case-control studies. *J Emerg Crit Care Med.* 2018; 2:73.