

RESEARCH ARTICLE

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HAEMORRHAGIC STROKE COMPLICATING SEVERE PRE-ECLAMPSIA AT 22 WEEKS OF AMENORRHEA: A CASE REPORT IN GABON

^{*1}TCHANTCHOU Tanguy De Dieu, ⁴NGOU MVE NGOU Jean Pierre, ³LEMBET MIKOLO Aude Mariela, ¹MPIGA NDJAMBOU Edith, ³MINKO Julienne Isabelle, ¹NDILA Flocarine Mistella, ¹AVOME Carine, ²SIMO TEKEM Vicky Noel OKOUE Raphael, ²EDJO NKILI Gislhain, ¹PITHER Serge and ⁴MEYE Jean François

¹Department of Gynecology and Obstetrics, Army Teaching Hospital Omar Bongo Ondimba, Libreville, Gabon

²Resuscitation Service, Omar Bongo Ondimba Army Training Hospital, Libreville, Gabon

³Department of Pediatrics, University of Health Sciences (USS), Libreville, Gabon

⁴Department of Obstetrics Gynecology, University of Health Sciences (USS), Libreville, Gabon

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*Corresponding author:

TCHANTCHOU Tanguy De Dieu

ABSTRACT

Objective: The purpose of our work is to report a rare case of hemorrhagic stroke (CVAD) during pregnancy in the second trimester of pregnancy and a favorable course for the mother and the fetus. **Our Observation:** We report the case of Mrs. NA, aged 42, with a history of poorly monitored hypertension and scarred uterus who was admitted to the emergency department for aphasia and right hemiplegia at the end of pregnancy. from 22 SA. Clinical and paraclinical assessments revealed haemorrhagic stroke with capsulo-thalamic hematoma and ventricular flood complicating severe super-eclampsia. Obstetrical ultrasound showed a progressive pregnancy of 22 AS without particularity. The patient received multidisciplinary care (Urgentist, resuscitator, neurologist, re-educator, obstetrician gynecologist). The intra-hospital circuit was emergencies, resuscitation and obstetric gynecology. The evolution was marked by an improvement in blood pressure figures. Pregnancy has evolved to 32SA where unstable blood pressure numbers motivate emergency fetal extraction. The mother-child couple is supported by the adult and neonatal intensive care units with good progress. **Conclusion:** AVCH is a rare complication during pregnancy that deserves to be investigated for any sensitive - motor deficit. The care remains multidisciplinary.

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INTRODUCTION

The occurrence of a cerebrovascular accident during pregnancy is an unpredictable and devastating event. This is a potentially dramatic association because of the risk of disability, maternal death, and consequences for the fetus (Camargo, 2019; Lamy, 2012). Numerous uncertainties remain regarding risk factors, causes, maternal - fetal prognosis and management (Camargo, 2019; Lamy, 2012; Miller, 2019; Davie, 2008; Helms, 2005; Lamy, 2009 and Tang, 2010). The occurrence of such an accident in the second trimester of pregnancy is a major challenge for the medical team if the pregnant wants to keep the pregnancy and extract the fetus at

an age where it is viable in our exercise conditions (developing countries with limited resources). In Cameroon, a case of haemorrhagic stroke was observed in one patient at 34SA (Tolefac, 2018). In our country, in Gabon, no case has been reported so far. It therefore seemed appropriate to share this case of stroke in the second trimester of pregnancy with a favorable evolution for the mother and the fetus.

OBSERVATION

This is a 42-year-old female Gabonese woman, married, unemployed and consulted at the emergency room of the Omar Bongo Ondimba Army Teaching Hospital for a language disorder associated with a sudden motor impairment. It is a

multiparous, with a history of hypertension and uterine scar. In the history of the disease, the patient received prenatal consultation at 15 weeks of amenorrhea (SA). During this consultation, malignant hypertension (TA 190/110 mmHg) was observed without albuminuria during active fetal mono uterine pregnancy. In front of this table of severe chronic hypertension at 15 weeks, hospital management is recommended but the patient refuses hospitalization. Seven (7) weeks after the consultation, she returns to the emergency room for speech impairment associated with a motor deficit. The admission examination was found clinically: a severe pre-eclampsia superimposed (TA 190 / 110mmHg, FC 107bpm and 4crosses of proteinuria to the urinary strip), aphasia and right hemiplegia on uterus gravid with live fetus of 22SA. Para-clinically: anemia was found at 9.7g / dl in biology, and an intrauterine fetal mono-fetal pregnancy was 22 SA on ultrasound. The cerebral CT showed a hemorrhagic left capsulo-lenticular hematoma with peri-lesional edema and a mass effect on the median line (Figure 1).

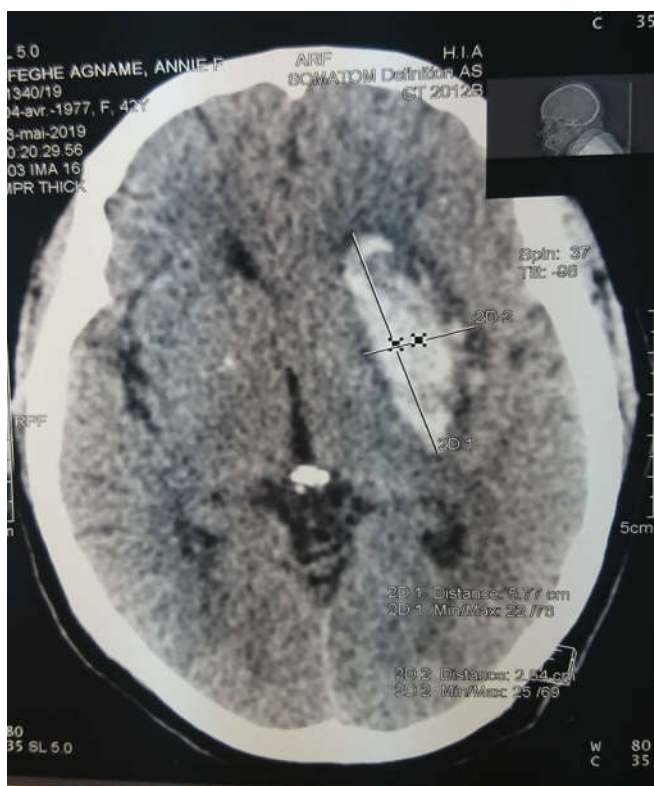


Figure 1. Cerebral CT, axial section at day 0

It was also noted a mass effect on the ipsilateral ventricle which is collapsed associated with a beginning of subfalcine involvement (Figure 2). Faced with these clinical and paraclinical arguments, we retained the diagnosis of hemorrhagic cerebrovascular accident complicating a severe pre-eclampsia superimposed on a progressive pregnancy of 22 AS. After conditioning in the emergency room, the patient is immediately transferred to the resuscitation department for proper management. It benefits in intensive care from a treatment based on antiedematous drugs, antihypertensives and analgesics. Once stabilized, the patient on the 5th day of hospitalization is referred to the maternity ward or will continue treatment. Beside the medical treatment, he is initiating a physical rehabilitation in addition to the antihypertensive treatment in coordination with the neurologist and the cardiologist.

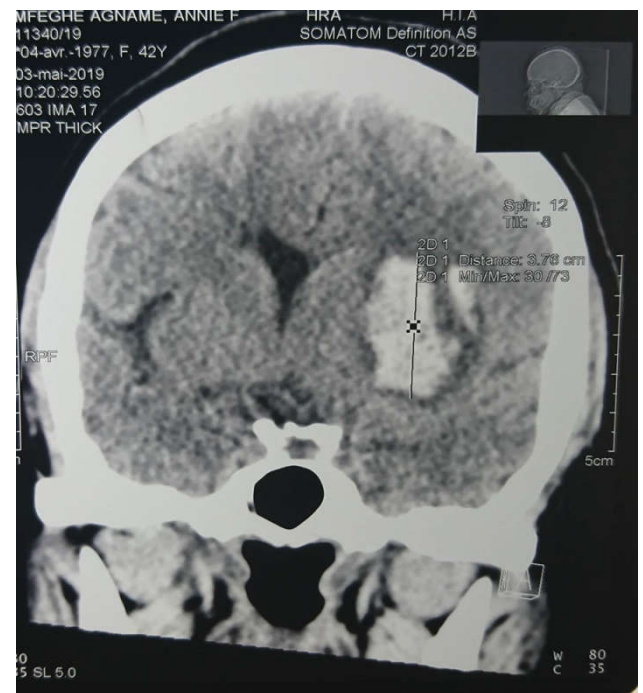


Figure 2. Cerebral CT, coronal cut on day 0

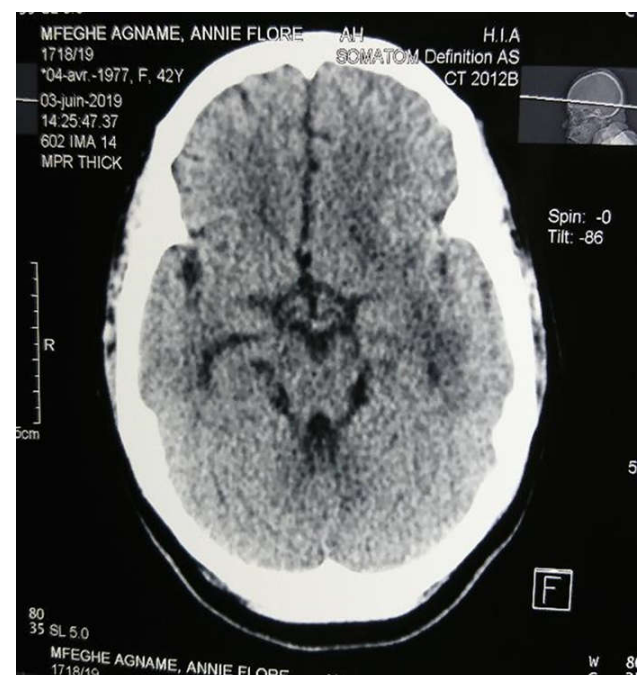


Figure 3. Cerebral CT, axial section at day 30

At the end of ten days of hospitalization, the patient is proposed to leave with a TA at 150 / 90mmHg and two crosses of proteinuria with the urinary strip. It is then set up a monitoring of TA, fetal heart sounds and physiotherapy sessions. The evolution at one month (ie at 26 weeks) after the hospitalization was marked by the stabilization of blood pressure figures, an improvement of the sensitivomotor deficit, a pregnancy of normal evolution, a complete resorption of the lenticular hematoma left, leaving room for edematous reworking (Figure 3). The patient benefits from a weekly evaluation that is without particularity. At 31 weeks + 5 days, the pregnant woman presents a re rise in blood pressure (TA 150 / 120mmHg) with 4 crosses of proteinuria on the urine strip, all on progressive pregnancy. After multidisciplinary consultation and pulmonary maturation, we perform a

caesarean section that allows us to extract a newborn, premature male weighing 1860g with a APGAR score of 10/10. The newborn is directly supported by the neonatology department. The immediate post-operative evolution is marked by a stabilization and normalization of the blood pressure figures. The patient leaves on the 4th postoperative day after a hepato-renal, cardiovascular and ophthalmic assessment. Despite clinical improvement in general, there is still a motor deficit and dysarthria. At three months postoperatively, there is an improvement in hemiparesis. Examination of the infant is peculiar with good growth.

COMMENTS

Epidemiology: The incidence of stroke during pregnancy ranges from 5 to 67/100000 deliveries. It is most often of cerebral infarction, cerebral haemorrhage or meningeal haemorrhage (Bateman, 2016 and Salonen, 2001). The majority of the studies were hospitable, the most recent being Japanese (Katsuragi, 2019). In 30 years, Katsuragi S has reported 34 cases of stroke during pregnancy in Japan with 26 cases of AVCH (Katsuragi, 2019).

Occurrence period: Several studies have shown that the risk of a stroke is higher in the postpartum than during pregnancy as in our case (Ban, 2017). Indeed, the cerebrovascular risk is not high during the pregnancy itself. In contrast, the postpartum period has an increased risk of stroke (Camargo, 2019; Lamy, 2012; Liew, 2019). Hemorrhagic stroke appears to be more common during pregnancy than ischemic stroke (Camargo, 2019; Katsuragi, 2019);

Risk factors: Pregnancy and peripartum are recognized as a risk factor for developing stroke (Liew, 2019). Tang SC et al. identified several risk factors for stroke in pregnancy, such as classical vascular risk factor, age > 35 years, black race, hypertension (pre-existing or gestational, pre-eclampsia), complications pre-eclampsia, transfusion, hydro-electrolytic disorders, cesarean delivery, coagulopathies and complications of pre-eclampsia (eclampsia, HELLP, ...) (Miller, 2019). In these groups of patients, the risk is up to 6 times higher than that of pregnant women without these disorders (Miller, 2019). On the different risk factors identified in the literature five (5) relates to our patient. The risk of having a hemorrhagic stroke is three times higher than the risk of ischemic stroke in pregnancy than outside (Liew, 2019). In the postpartum, the presence of an infection during delivery was associated with a higher risk of ischemic stroke (Miller, 2019). Contrary to the preconceived ideas, the risk of stroke related to Moyamoya disease during pregnancy, childbirth and the postpartum period seems to be questioned (Fluss, 2019).

Clinic and paraclinic: The clinical signs of a patient with stroke are quite obvious. The search for the etiology must be as rigorous as possible. Pregnancy should not delay or counteract medical imaging in order to make a diagnosis of stroke (Camargo, 2019; Liew, 2019; Ladhani, 2018). In the second trimester, as in our case, the imaging was done at the patient's arrival.

Causes of stroke: The main causes of stroke during pregnancy are pre-eclampsia, emboligenic heart disease, vascular malformation rupture, cerebral venous thrombosis (Camargo, 2019; Miller, 2019).

Management and materno fetal prognosis: Any type of acute stroke is an emergency that should result in immediate coordination of care between obstetric anesthesiologists, stroke neurologists, obstetricians, nurses and neonatologists (Miller, 2019 and Salonen Ros, 2001). We did not perform angiography or endovascular treatment as recommended by consensus in Canada (Ladhani, 2018). The management of our patient consisted essentially of a symptomatic treatment focused on an anti-oedematous, the nicardipine associated with the aldomet, paracetamol and phloroglucinol. There is no consensus on how to deliver after a stroke during pregnancy. They must be decided primarily on the basis of obstetric criteria, without systematically resorting to caesarean delivery (Ladhani, 2018). At 32 SA and given the presented clinical picture (HTA peak), the multidisciplinary team opted for an emergency caesarean section. Prematurity is usually the principle in these cases where the pregnancy is completed (Camargo, 2019; Tolefac, 2018; Katsuragi, 2019; Ladhani, 2018). Stroke-related mortality of 5 to 10%. It is higher in case of cerebral hemorrhage than in case of infarction. On the other hand, data on the fetus are rare (Bateman, 2006). The peculiarity in our case is the haemorrhagic lesion and the favorable evolution for both the mother and the fetus. In fact, maternal morbidity is marked by hemiparesis and the patient continues to benefit from kinesiotherapy. The newborn at three months of life has no abnormality.

CONCLUSION

Ultimately, hemorrhagic cerebrovascular accident is a rare pathology, potentially serious for the mother by her functional and vital prognosis. While putting the priority on the life of the mother, the perceptive of the exit of the new must be done as soon as possible and requires a multidisciplinary consultation.

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