

well as a genetic predisposition; therefore, diabetic hypertension presents a greater risk of complications. In fact, 50% of diabetics suffer from hypertension. Diabetes is generally associated with increased oxidative stress which plays a major role in the development of cardiovascular disease. The profound imbalance between oxidative pro- and antioxidants in favor of the former leads to irreversible cell damage. The objective of our study was to evaluate the redox status in hypertensive diabetic type-2 women compared to healthy controls.

Methods The purpose of the study was explained to these women and their written consent was obtained beforehand. Blood samples for the dosage of biochemical parameters and determination markers of plasma oxidative stress was obtained from type-2 diabetic hypertensive women ($n = 40$) and healthy female volunteers ($n = 40$).

Results and discussion Hyperglycemia and increased levels of glycated hemoglobin were constant in type-2 diabetes hypertensive women. The plasma levels of transaminases (TGO, TGP), alkaline phosphatase (PAL) and lactate dehydrogenase (LDH) were increased in diabetic women as well as plasma levels of urea and uric acid, indexes of renal impairment. Our results also revealed that, compared to control females, plasma and erythrocyte oxidizing markers (nitric oxide (NO-), superoxide anion (O₂-), carbonylated proteins, and lipid peroxidation markers (MDA, and hydro-peroxides) were increased in relation with decreased erythrocyte antioxidant enzymes (catalase, superoxide dismutase (SOD) and glutathione (GSH), and plasma vitamin C).

Conclusion Type 2 diabetes associated with hypertension is associated with metabolic changes and impaired redox status. A nutritional prevention, with antioxidant supplementation, a diet rich in vegetables and fruits, low in fat and fast sugars are recommended in these women.

Disclosure of interest The authors declare that they have no competing interest.

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Complications and evolution of parturientes with HELLP syndrome admitted to the ehu oran



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Objectives The HELLP syndrome: Hemolysis Elevated Liver Enzymes, Low Platelets, is a severe form of pre-eclampsia associated with acute kidney failure. The HELLP syndrome is responsible for heavy morbidity and maternal-fetal mortality. The goal of our work was to study how to determine the incidence of HELLP-related complications.

Methods We conducted a cross-sectional study over 4 years from January, 2013 to December 2016 in the gynecology - obstetrics department of the Oran EHU in collaboration with the hemodialysis and nephrology department from the same hospital, in patients presenting the HELLP syndrome whether complete or not.

Results We identified 165 cases of pre-eclampsia complicated by HELLP syndrome, women were mainly multiparous, with an average age of 32 ± 6.33 . Pregnancy was not regularly followed in 97 patients (59%). The HELLP syndrome was diagnosed after an average of 33 weeks of amenorrhea. Among the complications of the HELLP syndrome we noted acute kidney failure (AKF) diagnosed on the RIFLE criteria in 62 patients who settled after an average of 4.5 after admission for the HELLP syndrome. Nine patients had anuria and 53 had oliguria. The AKF was accompanied by placental retroviral hematoma in 20 patients, convulsive hypertensive encephalopathy on eclampsia in 38 cases, CVD in 17 patients and acute pulmonary edema in 10 cases. Thirty-three patients required hemodialysis with an average of 6 ± 2.2 sessions per patient, 1 of whom progressed to

chronic kidney failure. Ten cases (6.06%) of maternal death were noted in patients with AKF associated with renal and cardiovascular complications. Twenty-three newborns died at birth, 43 cases in utero.

Conclusion Given the significant morbidity and mortality of the AKF in the HELLP syndrome, the precocity of adequate management is the condition of a better prognosis.

Disclosure of interest The authors have not supplied their declaration of competing interest.

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Choice of anti-hypertensive treatment in HELLP syndrome at ehu Oran



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Objectives In Africa and Asia, nearly 10% of maternal deaths are associated with hypertensive disorders during pregnancy. Among the hypertensive disorders, HELLP syndrome (Hemolysis Elevated Liver Enzymes, Low Platelets: HS) represents a significant cause of severe morbidity and long-term disability. Our goal was to evaluate the management of antihypertensive treatment in HS syndrome.

Methods Our prospective, monocentric study included patient with a HS between January 2013 and December 2016. Our protocol was based on the antihypertensive molecules available in our institution administered orally: alfa methyl-dopa, nicardipine and acebutolol and intravenously: most often nicardipine and magnesium sulfate when pre-eclampsia was diagnosed.

Results One hundred and sixty-five patients with HS were admitted; mean age: 32 ± 6.33 years old, the average parity was 2 ± 1 , the average term for onset of pre-partum HS was 32 weeks of amenorrhea. At admission, 112 patients (68%) had epigastric pain in the upper right thoracic quadrant; severe hypertension with arterial pressure values $> 160/110$ mmHg was found in 116 patients (70.3%), headache in 83 patients (50%), visual disturbances in 27 (16.4%), confusion and hyper-reflexivity in 43 patients (26.1%). Magnesium sulfate was used in 68 patients. 96 patients received nicardipine alone intravenously. The combination of magnesium sulfate and nicardipine was performed in 27 patients, without significant deleterious hemodynamic or respiratory side effects.

Conclusion The management of hypertension was done according to a codified protocol with molecules available in each Maghreb establishment; it requires deep involvement of the paramedical staff.

Disclosure of interest The authors have not supplied their declaration of competing interest.

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Place of hypertensive encephalopathy during eclampsia and pre eclampsia



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Background and aims The pathophysiology of seizures in pregnant women with hypertensive peaks or even eclampsia is still poorly understood. Two mechanisms are discussed: cytotoxic edema secondary to vasospasm, and edema with vascular origin by hypertensive encephalopathy. The purpose of the study was to determine the mechanisms of injury that lead to seizures and neurological

signs in pregnant women with high blood pressure or even eclampsia.

Methods Our prospective study included all patients who had the following inclusion criteria: eclampsia, severe pre-eclampsia with neuro-sensory signs, and management delay less than 24 hours in post critical. Patients with seizures unrelated to high blood pressure were excluded. All patients were explored by a CT scan with and without contrast injection, a trans-cranial Doppler and a magnetic resonance imaging (MRI) at admission and an MRI of control at 15 days.

Results Thirty-five patients were included: 20 eclampsia and 15 severe pre-eclampsia. In eclampsia patients, cerebral CT showed cortico-subcortical hypo-density corresponding to MRI hyper-signal

lesion in T2, hypo-signal lesion in T1, a suggestive aspect of either edema or cerebral ischemia. In pre-eclampsia patients, we found 11 cases of cerebral hematoma and 4 normal cerebral CT. Doppler US eliminated vasospasm. All these lesions were diffuse, bilateral with a posterior predominance. The control MRI showed the disappearance of the lesions in all our patients.

Conclusion Eclampsia secondary to a pregnancy-induced hypertension seems to be secondary to a hypertensive encephalopathy with vascular origin cerebral edema in the majority of the cases; however, the association with a vasospasm can exist.

Disclosure of interest The authors declare that they have no competing interest.

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