REVERSIBLE POSTERIOR ENCEPHALOPATHY SYNDROME IN GRAVIDIC ECLAMPSIA

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INTRODUCTION

Posterior reversible encephalopathy syndrome (PRES) is a clinicoradiological entity characterized by headache, seizures, disturbance of consciousness and visual symptoms associated with potentially reversible neuroradiological abnormalities. This radiological picture is more often found in the parieto-occipital lobes.

The Pre-eclamptic Syndrome is characterized by oedema, proteinuria, arterial hypertension arising after the twentieth week of pregnancy. The Eclampsia is made up by the pre-eclamptic triad associated with epileptic seizures. The pathogenesis of these disorders is not yet completely clear.

We report a case of a 27th week pregnant woman who presented recurrent epileptic seizures, preceeded by visual deficits; her neuroradiological findings were suggestive of PRES.

CASE REPORT

On April 12th 2014, a 23-years-old pregnant woman, affected by Type II diabetes, obesity and arterial hypertension, underwent medical care in our ER Department for three recurrent seizures, preceeded by bilateral visual disorder and confusion. Her basic therapy was metildopa, ASA, calcic nadroparin and metformin. She was pregnant at the 27th week. She suddenly developed high blood pressure, slight normocitotic anemia (from 13 to 10.9 g/dl), lowered platelets (from 109000 to 79000/mm3), nausea, vomiting, and proteinuria with elevated cytolytic enzymes (ALT 110 U/L, AST 92 U/L, LDH 607 U/L) and elevated D-Dimer (816 ng/ml), and other coagulative parameters, glicemia and serum electrolites in the normal range. The symptoms rapidly improved after intravenous diazepam, magnesium sulphate and midazolam, followed by intramuscular phenobarbital, given because of persistent status epilepticus. A urgent caesarean section was made 2 hours after the admission, after which the patient rapidly recovered.

DIAGNOSTIC EXAMS

A CT-scan at the admission showed two bilateral hypodense areas in the parieto-occipital boundary (Fig. 1)

The EEG on the 3rd day showed a bilateral fronto-central isolated sharp waves and mildly irregular posterior alpha rhythm (Fig.2). Four days later these lesions were confirmed by brain magnetic resonance imaging (MRI), that showed hyperintense gyriform lesions on T2-weighted and FLAIR images and some hypointense symmetric lesions on T1-weighted images in the bilateral posterior parietal lobes (Fig.3).

A new EEG at the 7th day showed normal findings (Fig. 4). After two months, a second MRI showed the complete disappearance of the bilateral posterior parietal lesions, according to the condition of PRES (Fig. 5).

DISCUSSION

Associated gravidic eclampsia, HELLP syndrome and bilateral posterior parietal hypodensities at CT-scan or T2 hyperintensities at MRI are suggestive of a condition of PRES. This condition is supposed to represent a particular kind of brain oedema correlated with a reversible damage to the Blood-Brain Barrier. The damage is selectively located in the posterior watershed zone whose cerebral arteries have a poorer sympathetic innervation, resulting in reduced vasoconstriction and increased local vulnerability.

REFERENCES