

AMNESIA AND RETROGRADE MEMORY LOSS AS A COMPLICATION OF ECLAMPTIC FIT

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ABSTRACT :

Eclamptic fit has been described in literature as a complication of Pre-eclampsia, However, the occurrence of eclamptic fit without pre-eclampsia has rarely been described and to our knowledge coexistence of eclamptic fit and normal pregnancy is very rare. Eventhough the long term complications and permanent neurological defect after an eclamptic fits are rare, long term follow up is important for these patients.

KEYWORDS :

Eclamptic fit, Normal Pregnancy, Memory loss

INTRODUCTION:

Eclamptic fit and its subsequent complications continue to pose a diagnostic challenge. Eclamptic fit after normal Pregnancy is a well known Phenomenon, but, the recent memory loss after eclamptic fit is rare complication.

CASE REPORT :

A 22 year old patient brought by her husband to Surman hospital on 21.4.2007 at 7:50 AM as primigravida, 42 weeks of gestational age, comatous with history of convulsion and biting her tongue. Her blood pressure was 200/130 mmHg, pulse 124 b/m and afebrile. The initial emergency therapy carried out immediately with insertion of mouth gag, oxygenation and cross matching.

Obstetrical examination indicate a term, cephalic and alive fetus with heart rate around 112 b/m and regular. With vaginal examination, cervix was partially effaced, head at -2 Station and absent amniotic membrane with moderate green liquor. She was not respond to our command and decision for urgent caesarean section was taken after her stabilization. Patient received intravenous therapy with hydralazine and Magnesium sulfate. Even though the vital signs were stable, she develop another attack of fit during the induction of general anesthesia. After operation the same therapy was continued with broad spectrum antibiotic, diazepam , manitol, diuretics and anticoagulant.

Six hours after operation, 3th fit is occurred.

Ophthalmic examination was normal. The tongue was oedematous and protruded from the mouth. Sever oliguria occurred in the first three days after the operation which is balanced on the 4th day. The blood pressure was fluctuated but return to 140/90 mmHg in 4th day post operative and patient generally is better. Urine albumin was persistently + + over 8 days and change to + in the 9th day and then disappeared up 10th day, table 1.

Table1, post-operative urine analysis control

Date	22/4	23/4	24/4	25/4	26/4	27/4	28/4	29/4	30/4
Urine ↓									
Albumin	++	++	++	++	++	++	++	++	+
bacteria	+	+	+	+	++	++	++	++	+
Pus	3	5	10	12	15		20		3
Acetone				Nil					
glucose				Nil					

The last result of the blood investigation is shown in the table 2, 3,4,5, 6, 7, 8.

Table 2, complete and differential blood count at discharge

WBC	RBC	HB	HCT	MCV	MCH	MCHC	PLT
5.8×10^3	3.8	11.6	33.9	87.4	29.9	34.2	174×10^3

Lymphocyte %	Granulocyte %	MID %
25.3	60.6	14.1

RDWSD	RDWCV	PDW	MPV	LPCR
42 fl	13.1 %	15.2 fl	10.9 fl	33.2 %

Table 3, result of blood investigation from admission to discharge

	RBC	MCV	HCT	Hb	MC H	MC HC	Plt	WBC
22/4	3.7	83.6	31.1	10.9	29.3	3.5	217	10×10 ⁹
23/4	3.7	82.7	31.2	11	29.3	35.4	92	12×10 ⁹
24/4	3.3	83.7	27.3	9.5	29.2	35.9	47	12.4×10 ⁹
25/4	2.9	84	24	8.7	29.4	34.9	117	8×10 ⁹
26/4	3.1	84.7	26.8	9.3	29.3	34.6	126	9.9×10 ⁹
27/4	No	result						
28/4	No	result						
29/4	3.2	84.9	27.7	9.6	24.3	34.6	266	8.1
30/4	3	85.4	26.4	4.1	24.5	34.5	263	6

Table 4, differential blood count from admission to discharge

	Lymphocyte %	Granulocyte %	MID %
22/4	17.2	78.6	4.2
23/4	17.1	78.5	4.4
24/4	14	82	3.5
25/4	24.4	70.7	4.9
26/4	13.3	83.2	3.5
27/4	no result		
28/4	no result		
29/4	17.6	77.8	4.6
30/4	17.9	77.5	4.6

Table 5, blood investigation

	MPV	PCT	PDW	LPCR	RDWa	RDW %
22/4	11	0.24	14.4	36.2	64.8	16.2
23/4	9.5	0.08	12.2	26	70.3	17.5
24/4	11.3	0.11	15.4	39.6	71.2	17.3
25/4	11	0.12	14	34.8	72.6	17.4
26/4	9.2	0.11	11.7	22	74.3	17.7
27/4	no result					
28/4	no result					
29/4	10	0.26	12.7	27.8	75.9	18.1
30/4	10.2	0.26	12.8	28.9	74.9	17.9

Table 6, results of liver and kidney function tests from admission to discharge and

	22/4	23/4	24/4	25/4	26/4	27/4	28/4	29/4	30/4
Urea (m/d L)	10	11	11	8	10	11	15	11	15
Cr ng/d L	0.7	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.5
Na mmol/L	134	133	136	135	134	135	137	136	137
K mmol/L	4	3.7	3.4	3.3	3.2	3.9	4.4	4.3	4.2
Mg	3.6	3.2	2.5	2.4	2.3	2.3	2.3	2.3	2.3
CL mmol/L	109	107	108	107	106	106	107	106	105
Ca ng/dL	8.5	8.3	8.2	8	8.1	8.3	84	8.5	8.8
Cholesterol ng/dL	231	192	160	155	160	170	196	192	191
Uric acid ng/dL	9.4	718	6.4	4.6	4.5	4.4	3.8	3.7	3.6
AST U/t	199	129	82	74	6.4	54	49	36	35
ALT U/L	64	53	51	49	48	24	47	36	35
LDH U/L	1169	1568	1257	1104	1103	1100	900	884	836
T.bilirubin ng/dL	0.9	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.1
Total Proteins g/dL	5.5	4.9	4.9	4.5	5.3	5.4	5.7	5.5	5.5
ALK Phosphatase U/L	168	135	126	115	110	107	109	110	110

Table 7, coagulation profile from admission day up to discharge mentioned in table 7.

	22/4	23/4	24/4	25/4	26/4	27/4	28/4	29/4	30/4
S.Fibrinogen	700	705	529	498	449	450	420	400	307
Prothrombin time	14.5	14.5	132	13.4	13.5	13.5	13.6	13.7	14
PTT	32	32	33	34	34	35	35	35	36
INR	1.6	1.5	1.4	1.3	1.2	1.1	1.1	1	1

Table 8, result of ABG on admission day

pH(T)	7.487
P CO ₂ (T)	15.0 mmHg
P O ₂ (T)	122 mmHg
TCO ₂	11.9 mmol/L
HCO ₃	11.4 mmol/L
BEb	-8.9 mmol/L
BEecf	-12.2 mmol/L
SBC	18.0 mmol/L
% s O ₃ c	20.4 mL/dL
A-aDD ₂	10 mmHg
RI	0.1

ABG: arterial blood gas

DISCUSSION :

There was a fixed results of Hemoglobin, MCH, MCHC, RBC, PDW, PCT and MPC over the period of clinical improvement which is up 9th days of admission, but the MCV, RDW_a, RDW% are going to increased while the TLC, DLC, HCT and PCR going to decreased over the same period. The platelet count is suddenly dropped over the first 3 days of admission, then raised again over next 6 days. The prognostic indicators of clinical improvement were serum cholesterol, uric acid and liver function test while urine albumin had no relation.

Renal function test, blood sugar, total protein, serum calcium, magnesium and amylase show a wide variation but within the normal range. There was an obvious decrease in serum fibrinogen level over 9 days of admission, while prothrombin time and active partial prothrombin were increased. Arterial blood gases were normal. Six months after the operation, patient was complaining of recent memory loss. The important examination of the brain with CT-Scan was unfortunately refused by the patient. Cerebral pathology in cortical and subcortical white matter in the form of edema, infarction, and hemorrhage is a common autopsy finding in patients who die from eclampsia [1,2]. Focal neurologic signs such as hemiparesis or prolonged unconscious state are rare after eclampsia as reported from many developed countries [3,4]. Although eclamptic patients may initially manifest a variety of neurologic abnormalities like cortical blindness, focal motor deficits and coma, most of them have no permanent neurologic deficits [5,6] .

In fatal cases, there are arterial lesions in many organs including the brain. Delirium occurs in about 5% of cases. Until now around 240 detailed cases have been reported with memory loss after eclampsia in the world literature [7]. It particularly affects first time mothers. Seizures may begin before, during or after labour, but the onset of psychosis is almost always postpartum. Eclamptic delirium can occur without seizures [8]. There is often an interval between seizures (or coma) and psychosis, a gap that has occasionally exceeded four days. The duration is classically short around one to two weeks, but a prolonged course (two months or more) has been observed. Recurrence in next pregnancies is unknown. After recovery amnesia, and sometimes retrograde memory loss may occur, as well as other permanent cerebral lesions such as dysphasia, hemiplegic or blindness.

CONCLUSION :

Even though, the permanent neurological defects are very rare complications after an eclamptic fits, long term follow up is advised and important to detect any neurological defect as early as possible.

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