

A CLINICAL AND EPIDEMIOLOGICAL STUDY ON ECLAMPSIA IN THE OBSTETRICS AND GYNECOLOGY DEPARTMENT OF CATANIA IN THE YEARS 1978-1983

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Summary: From January 1978 to July 1983 22 patients have recovered from eclampsia in the Obstetrics and Gynecology Department - Vitt. Emanuele II Hospital - Catania University.

64% of the patients had hypertension in pregnancy combined with edema in 92.85% of the cases (13 cases) and with proteinuria in 18% of the cases (4 cases).

Eclampsia manifested itself before labour in 28.57% (6 cases), during labour in 19.05% (4 cases), in postpartum in 19.05% (4 cases) and in the successive three days after delivery in 33.33% (7 cases).

Perinatal death rate was 11.28% and in all the cases it was due to intrauterine fetal death. In 22 patients treated there was a case of acute pulmonary edema and a case of maternal death.

Key words: eclampsia, epidemiology, fetal mortality - maternal mortality.

Between January 1978 and July 1983 22 eclamptic patients (0.08% of the total amount, 26,920) were admitted to this Institute.

Data regarding age, parity and maternal death-rate, period of the manifestation of eclampsia, the modality of delivery, and perinatal death-rate have been analyzed.

The age of the patients varied between 15 and 40 years old, with a greater percentage in the years from 15 to 25 (59%, tab. 1).

55% (12 cases) were nulliparous while 45% (10 cases) were pluriparous, of whom only one had more than 4 pregnancies.

The risk factors are pointed out in tab. 2: cardiopathy, an excessive gain in weight during pregnancy, twin-birth, hypertension, edema, proteinuria.

At the moment of admission to hospital, 64% (14 cases) of the patients were suffering from arterial hypertension combined with edema in 92.85% of the cases (13 cases), and with proteinuria in 18% of the cases (4 cases).

The average arterial hypertension values were 102.08 mmHg and 171.06 mmHg for the minimum and maximum, respectively.

Tab. 3 presents data from a week's pregnancy: in 27% (6 cases) eclampsia manifested itself between the 28th and 37th week; in 68% (15 cases) between the 38th and 41st week; and only one case in the 19th week in a patient's first pregnancy with a molar degeneration.

Eclampsia, in particular, manifested itself before labour in 28.57% (6 cases) of the patients, during labour in 19.05% (4 cases), postpartum in 19.05% (4 cases) and in the successive three days after delivery in 33.33% (7 cases), tab. 4.

The modalities of delivery are summarized in tab. 5.

The perinatal death-rate was 14.28% (4 cases of intrauterine death of the fetus); the death rate was higher (50%) in eclampsia before labour, lower (9.09%) in eclampsia after delivery, and none in eclampsia during labour.

Table 1. — *Age of patients and eclampsia.*

15 - 20	36 %	(8 cases)
21 - 25	23 %	(5 cases)
26 - 30	18 %	(4 cases)
31 - 35	18 %	(4 cases)
36 - 40	4.5%	(1 case)

Table 2. — *Risk factors in eclampsia.*

Cardiopathy	9 %	(2 cases)
Twin pregnancy	9 %	(2 cases)
Hypertension	67 %	(14 cases)
Proteinuria	18 %	(4 cases)
Edema	59 %	(13 cases)
Molar degeneration	4.5%	(1 case)
Excessive weight gain	22.7%	(5 cases)

Table 3. — *Gestational age at onset of eclampsia.*

≤ 28	4.5%	(1 case)
29 - 37	27.5%	(6 cases)
38 - 41	68 %	(15 cases)

In the live-born, the percentage of fetal hypoxia was 14.28% (3 cases). There was a case of maternal mortality in a patient suffering from repeated eclamptic fits, while the other patients were completely recovered at the time of their discharge.

Tab. 6 shows the number of eclamptic fits in the patients. The average period of hospitalization was 11 days.

DISCUSSION

Out of 22 patients examined, eclampsia manifested itself in 59% of the cases (13 cases) in young women (aged between 15 and 25) and 45% in first pregnancies. Therefore, the net prevailing percentage in the first pregnancies, was not pointed out.

It is very important to point out that in all patients there were one or more risk factor (cardiopathy, hypertension, twin-birth, excessive gain in weight during pregnancy, proteinuria) and that, in a patient with a mole degeneration of the trophoblast, eclampsia manifested itself in the 19th week.

The most important risk factor seems to be hypertension in pregnancy, evidenced in 67% (14 cases) of the patients, since it worsens the maternal and fetal prognosis (^{2, 3}).

In 50% of the cases (as previously noted by other Authors), eclampsia occurred after delivery and in 36.36% of these cases delivery had taken place at home.

The perinatal death-rate was 14.28% (4 cases) and in all the cases it was due to intrauterine fetal death.

The factors that modify the fetal prognosis are: serious hypertension, I.U.G.R.,

Table 4. — *State of pregnancy at onset of eclampsia.*

Antenatal	Intrapartum	Postnatal
28.57% (6 cases)	19.05% (4 cases)	52.38% (11 cases)

N.B. - There was one case of molar degeneration.

Table 5. — *Delivery.*

Spontaneous	52.38%	(11 cases)
Vaginal operative	28.57%	(6 cases)
Caesarean section	19.05%	(4 cases)

N.B. - There is one case of molar degeneration.

Table 6. — *Number of fits in each patients.*

No. of fits	%	No. of cases
1	77.2	(17)
2	9	(2)
4	4.5	(1)
>4	4.5	(1)

high proteinuria, immediate hospitalization and adequate medical or surgical treatment.

In any case wide use of the caesarean section does not improve the fetal prognosis. However very often it improves the maternal prognosis.

The main causes of maternal morbidity are cerebrovascular lesions (7.4% of the cases), acute pulmonary edema (1.4%), intravascular disseminated coagulation (5%), acute renal failure (4.8%), postpartum uterine atony (5.4%) and abruptio placentae (5.6%) (1).

The most common causes of maternal death are: cerebrovascular lesions (72.1%), coagulopathies (3.5%), postpartum hemorrhages (5.8 %) and respiratory failure of an outstanding entity (1).

In 22 patients there was only one case (4.54%) of acute pulmonary edema medically treated and one case of maternal death (4.54%) in a patient suffering from repeated eclamptic fits. The remaining patients were completely recovered on

discharge. The immediate medical treatment considerably improved maternal prognosis, but owing to the seriousness of the illness and to its complications, prevention is the aim at present.

Therefore, it is fundamentally important for the patients to have an adequate sanitary education (the type of diet, periodic obstetric check-up, an accurate control of concomitant pathologies and hospitalization for the delivery) and an early diagnosis of hypertension in pregnancy.

BIBLIOGRAPHY

- 1) López-Llera M.M.: *Am. J. Obst. Gyn.*, 142, 28, 1982.
- 2) López-Llera M.M., Linares R.G., Horta H. J.L.: *Am. J. Obst. Gyn.*, 124, 149, 1976.
- 3) Leading Article: *Brit. Med. J.*, 1, 1485, 1976.
- 4) Panella I: «Nuovi orientamenti nella conduzione del travaglio». Atti 58° Congresso Nazionale Soc. Ital. Ost. e Gin., Catania, 1977.
- 5) Neme B., Behle I.: *Acta Obst. Gyn. Scand.*, 57, 19, 1978.

HEMOLYTIC DISEASE OF THE NEWBORN SECONDARY TO ANTI-FY^a AND ANTI-S

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Summary: One case of rare maternal-fetal immunization in a patient affected by Cooley's anemia, is reported. The opportunity for a complete characterization of the blood group and for a search for maternal antibodies in patients with a history of multiple blood transfusions is stressed.

INTRODUCTION

The maternal-fetal immunization due to antigens other than those of the Rh(D) and ABO systems achieved a new interest with

the decrease in Rh(D) disease. It accounts for 2 to 5% of hemolytic disease of the newborn (Weinstein, 1982). In many cases exchange transfusions were performed