

THE TERM 'PRE-ECLAMPSIA' SHOULD BE REPLACED?

Rippmann ET

Secretary General of the Organisation Gestosis (OG)
Society for the Study of Pathophysiology of Pregnancy
Basel, Switzerland.

ernst.theodor@rippmann.ch

Though this nomenclature is well known and generally used, it should be discarded. You may wish to object at this suggestion, but first listen to the reasons for this suggestion.

Pre-eclampsia defines a condition immediately before eclampsia. Eclampsia is characterized as a pregnancy complication culminating with epileptoid tonic-clonic seizures. It is a rare clinical picture when good prenatal care is available. It is a frequent cause of maternal and perinatal fetal death in developing countries where the offered care is not being used. In these countries it is the number 1 killer of mothers and babies.

The term 'pre-eclampsia', as it is presently being used in the anglo-american literature, would be equivalent to the cardiologists referring to a slight elevation in blood pressure as a 'pre-stroke' or a pre-CVA. In weather forecasts, a single high wave could be referred to as a 'pre-Tsunami'. Ninety eight percent of patients with 'pre-eclampsia' never reach that dangerous condition of Imminent or Impending Eclampsia, Eclampsia Imminens (EI). This 'real' pre-eclampsia or EI is a clearly defined entity heralding the deadly eclamptic seizures. British authors have often complained that eclampsia is usually unexpected, but measures to recognise the signs and symptoms of imminent seizures which would lead to appropriate treatment of all such patients and would lead to a reduction in the maternal and perinatal mortality, has proven difficult to achieve. The classical symptoms and signs are listed below, and if these are present the clinical picture is clear and should not be overlooked.

Symptoms of Imminent Eclampsia are classically those of

- Splitting headaches
- Nausea
- Vomiting
- Acute swelling of limbs and body
- Reduced urine output
- Concentrated urine- dark colour, fetid smell
- Excruciating pain in the right upper abdomen
- 'Muches volantes'
- Amaurosis

Signs defined by the health care worker are

- Rising blood pressure
- Oliguria, anuria
- Ocular fundal changes
- Hyper-reflexia

Three factors are of utmost importance:

1. This pregnancy complication is not, and never was, one single disease and should not be treated as such. It is a syndrome, similar to HELLP syndrome, where its aetiology has not been identified. When under treatment some of the symptoms and

signs resolve, however the condition is not cured and many of the risks to the fetus and mother continue.

2. This syndrome is a pregnancy complication of the neglected woman. It is more common in the low socio-economic group without prenatal care.
3. It should largely be preventable or its severity reduced, with beneficial effects to the babies and mothers.

Abnormal function of a variety of organs/systems can be called 'nephrosis', 'neurosis', or 'collagenosis'- so why not call this condition in pregnancy 'gestosis'. It would show the cardinal signs and symptoms of which there is general agreement

E	pathological edema (water retention)
P	pathological proteinuria
H	Pathologic elevation of blood pressure (hypertension)

It is for this reason that it has been referred to as **EPH-Gestosis**.

This name does not say anything about prognosis, about the origin of the signs or symptoms, or about underlying or pre-existing disease. It just says what is to be seen and to be watched for. It warns that it might develop into a high risk pregnancy.

Because it does not call it a 'disease' it urges you to look for the causes of the cardinal signs and symptoms- E,P and H, as early detection, as in medicine in general, is the most important step if prevention has failed.

Early detection of EPH-Gestosis means, in the majority of cases, the need to look for pathologic edema. It is the first symptom and sign to appear and can do so as early as the 10th week of pregnancy. It is often the only symptom which the pregnant woman can detect herself and can indicate to her that the pregnancy may be in danger.

The next symptoms to appear, that the patient is able to detect herself, are those of imminent eclampsia (E).

The second sign to appear is pathological proteinuria. This can be detected by an experienced helper, the Traditional Birth Attendant, Social worker, nurse, midwife or doctor- all that is required is a dipstick test on a voided urine specimen.

The last sign is hypertension, readily detected by appropriately trained individuals, following appropriate rules, knowing how to define the systolic and diastolic values, and have the appropriate equipment to do so. In areas where neglected women live, in developing countries (such as Central Africa, and rural areas of India) these pre-requisites are often pure luxury and just not available. Not even in Central Europe or America are these facilities always available. In addition there are other pitfalls in the blood pressure recording such as

- Inappropriate position of patient and examiner
- Psychological condition of the patient and examiner
- The type and calibration of the blood pressure machine
- The duration of the pregnancy
- Just to name a few.

Studies have revealed that 50-80% of the readings are wrong, so we have come to the conclusion that hypertension has been grossly overestimated and should be the last sign to be

considered. It should not appear in the nomenclature of this pregnancy complication as the main denominator.

The nomenclature used (EPH-Gestosis) allows it to be mono-symptomatic (E, P or H), bi-symptomatic (EP,PH or EH) or poly-symptomatic (EPH). Use of this term opens the way for comparable results, mutual understanding, for progress in research and clinical care, and should lead to a reduction in fetomaternal mortality and morbidity.

In reaching this point, the origin of these cardinal signs and symptoms has not been discussed. Treatment of just the manifestations, and not the unknown causes, is comparable to coloring the lips of anemic patients and claiming they have enough blood, or administering pain killers to a patient with appendicitis and then declaring him cured because he no longer has pain. Yet, that's exactly what we do when we lower the elevated blood pressure using drugs, including diuretics. We just treat the symptoms. That's plain cosmetics.

We need to define the cause of the symptoms, and then treat the responsible underlying cause. Post-partum investigation is mandatory, as 2-3 months after delivery, all the changes of EPH-Gestosis have returned to normal.

In summary

1. We are dealing with a syndrome (like the HELLP syndrome) which is the world wide number 1 killer of women and babies.
2. We are looking after a pathologic pregnancy, a gestosis characterized by 3 cardinal signs- pathologic edema, proteinuria and blood pressure elevation.
3. This EPH-Gestosis should be able to be prevented.
4. EPH-Gestosis is prevalent in areas of poorly tended women (a socio-economic and medical wasteland)
5. Care at the grass root level can detect women in danger of a high risk pregnancy.
6. Edema is the symptom number 1, the most important one, which is easily detected by the patient in danger herself.

By teaching those who care for pregnant women we can reduce the morbidity and mortality of the population as a whole.

In most countries of this world the family or clan is of most importance. Sickness and death are heavy, sometimes life long burdens, which the community has to shoulder and which can disrupt it. Teaching how to fight EPH-Gestosis, the most frequent cause of mortality and morbidity during procreation results in joy and happiness not only to the woman and her healthy child, but to all members of the respective group of which she is part.

So, let's do it.