PRE-ECLAMPSIA – CAN IT BE PREVENTED?

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Introduction / Epidemiology

Hypertensive disorders (Pre-eclampsia, one of them) of pregnancy affect about 10% of all pregnant women around the world .

Pre-eclampsia



The Problem!

Pre-eclampsia , is one of the leading causes of maternal and perinatal mortality and morbidity worldwide.

Risk factors

- Age
- Obesity; a BMI of 30 or more
- Chronic hypertension
- Diabetes
- Previous pre-eclampsia



Etiopathological factors-

- Disturbances in placentation
- Vascular endothelial damage
- Inflammatory mediator
- Immunological intolerance between maternal and fetal tissues
- Coagulation abnormalities
- Genetic predisposition
- Dietary deficiency or excess



Prevention- Screening

- Patients with risk factors should be screened at an earliest.
- Preconceptional counseling
- Early Prenatal counseling & care
- Early detection of development of preeclampsia



Preconceptional Screening

Before becoming pregnant,

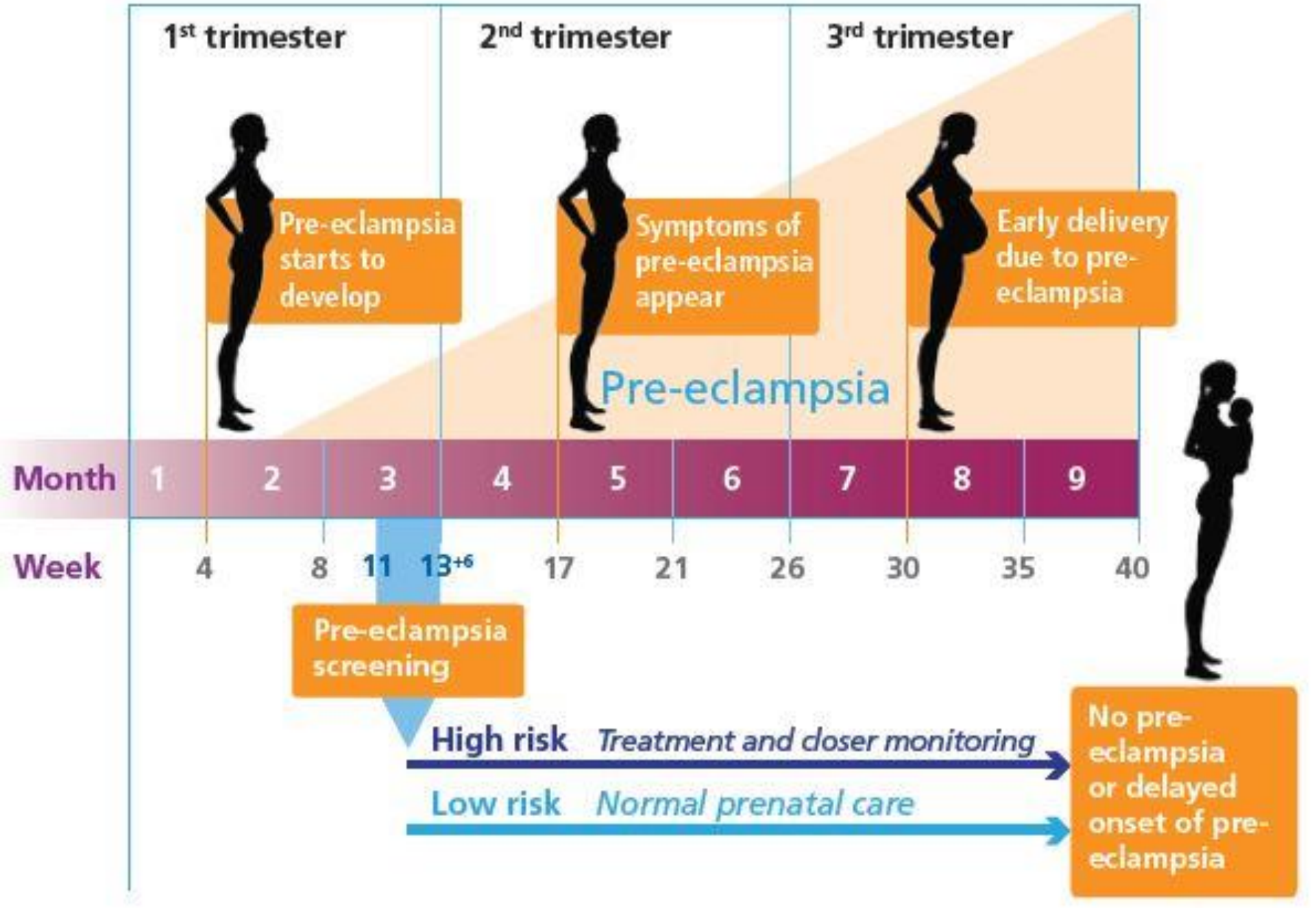
- evaluation of blood pressure and kidney function.
- testing for clotting abnormalities .
- If obese, consider weight loss..
- If insulin-dependent diabetes mellitus, good control of blood sugars
- Nutrition



Prediction- during early pregnancy

- Urinary calcium; calcium / creatinine ratio
- Plasma fibronectin
- Uterine Artery Doppler
- Low levels of corin gene & gene mutations in uterus of pre-eclamptic patients




1st trimester
2nd trimester
3rd trimester
Pre-eclampsia starts to develop
Symptoms of pre-eclampsia appear
Early delivery due to pre-eclampsia
Pre-eclampsia
Month
1
2
3
4
5
6
7
8
9
Week
4
8
11
13+6
17
21
26
30
35
40
Pre-eclampsia screening
High risk
Treatment and doser monitoring
Low risk
Normal prenatal care
No pre-eclampsia or delayed onset of pre-eclampsia

What can be Done ?

"It's not genetics. It's not random. The cause is NOT unknown. Toxemia CAN be stopped.

The simple answer?

GOOD NUTRITION & LIFESTYLE CHANGES



DISEASE CAUSATION –UNANI ASPECT

- Hippocratics theory of the four humors – "Health depended on a balance of the humors (body fluids) and any imbalance in the humors resulted in illness".

- The Hippocratics believed that a woman needed to be pregnant, lactating, or regularly menstruating for the elimination of excess fluids to maintain balance and health.

Maintainance of Health-UNANI ASPECT

- Ibne Sina's (Avicenna) third book of Al Qanoon fi Al-Tibb- 21st Chapter(The Canon of Medicine) provides detailed accounts of food & lifestyle in pregnancy and strategies for their management.

- The largest and most important of Razi (Rhazes's) medical books is "Al-Hawi fi Al-Tibb, the 9th book deals with women's diseases and pregnancy.

Good Nutrition-UNANI ASPECT

- The kind of food consumed during pregnancy influences both the mother and the child, and hence the future generations.



Good Nutrition

- help prevent still birth,
- premature birth,
- pre-eclampsia,
- anemia,
- placental abruption,
- infection and miscarriage.



Vital nutrients for a pregnant women





Omega 3

Folic acid



B complex





Vitamin C

Protein



Iron



Fibre



Calcium



Antioxidants

Selenium

Zinc

IHEALTHCAREHUB

NUTRILIFE HEALTH MANAGEMENT

Prevention of Disease- UNANI ASPECT

Along with nutrition, the effects of-

- air,
- exercise and rest,
- sleeping and waking,
- repletion and excretion,
- and the passions and emotions of the pregnant woman

-were important in the prevention of disease.



Prevention of Disease – UNANI ASPECT

- Avicenna and Rhazes have delineated special regimens during gestational period for maintaining and improving fetal and maternal health and easier childbirth.

- Nutrition and physical activity behaviors' are key modifiable factors associated with weight related outcomes in pregnancy"

Exercise & Physical Activity

- Moderate exercise and mild walking, proper rest and sleep are quite essential .
- Stretching exercise improves circulation which in turns improves blood pressure.





Psychological Stress

- Avoiding strong emotions, negative and positive feelings, anger and sadness.
- Avoid intense fear, shouting aloud and loud noises.
- Either depression or anxiety, or both, are associated with increased risk for preeclampsia.



Preventive Measures-RESEARCH…

- Low dose aspirin
- Mg, Zn, Ca supplementation: cheap & effective
- Anti-oxidants
- Fish oil supplementation
- Dietary supplementation- Vit C, D & E
- Possibly stretching exercises
- Lots of water, avoid alcohol and caffeine
- Have no more than 6g of salt a day,(a teaspoon).

Calcium

If you have a high risk of pre-eclampsia, or just don't eat a lot of dairy products, having more calcium-rich foods may help to reduce your risk of having high blood pressure or pre-eclampsia.

1.5-2 gms of calcium / day



Quick question: Why are we so obsessed with the idea of getting calcium from milk?



1 cup milk = 276 mg calcium (28% DI)



100 g sesame seeds = 989 mg (99% DI)



100 g chia seeds = 635 mg (64% DI)



100 g winged beans = 442 mg (44% DI)



1 cup almonds = 367 mg (37% DI)



100 g fried tofu = 372 mg (37% DI)



100 g turnip greens = 190 mg (19% DI)



1 cup bok choy = 158 mg (16% DI)



5 dried figs = 135 mg (14% DI)



1 herring fillet = 106 mg (11% DI)

20 Calcium-rich plant foods in India

with their calcium contents per 100gms

(Calcium content in cow's milk: only 120mg!)



Almonds - 230mg



Urad dal - 154mg



Ragi - 344mg



Sesame (Til) - 1000mg



Kidney beans (Rajma) - 260mg



Moong - 124mg



Curry leaves - 830mg



Fenugreek (methi) - 395



Tofu - 350mg



Kala Chana - 287mg



Amranth leaves - 530mg



Coriander(Dhania) - 184mg



Dried basil - 2240mg



Soy bean - 277mg



Moth dal - 202mg



Poppy seeds (Khaskhas) - 1438mg



Dried figs (anjeer) - 162mg



Radish leaves - 265mg



Betal leaves - 230mg



Flax seeds - 255mg

Sources: USDA & NIN

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Vitamin D

There may be a link between not having enough vitamin D and pre-eclampsia.

Oily fish and eggs, and foods with added vitamin D, are good sources of vitamin D. Though most of the vitamin D we get is made under our skins, when we are exposed to sunshine.



Dietary Fiber

- One study has been suggested that increasing dietary fiber can prevent preeclampsia.

- The study suggests that out of 383 women, the ones who consumed more than 24 grams of fiber a day had a 51% reduction in the risk for preeclampsia.

Every Day Diet-Protein (upto150 gms)

- Milk Servings (4) = 32 grams
- Eggs(2) = 12 grams
- Meat/Protein = 50 grams
- Green Leafy Veggies = 2 grams
- Other Veggies = 1 gram
- Whole Grain Bread = 6 grams
- Citrus Fruit or Juice = 1 gram
- Other Fruit = 1 gram
- Butter = 3 grams
- Whole grain cereal, Yellow or orange fruits and veggies, Liver ,a whole potato, any style ....gms.

Top 10 Sources of Veggie Protein

design / layout by:
G-Marc Inandel
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Where do you get your protein?

(brought to you by The GIVE Project)

The GIVE project
thegiveproject.org
www.facebook.com/giveproject



Spinach
49% protein



Kale
45% protein



Broccoli
45% protein



Cauliflower
40% protein



Mushrooms
38% protein



Parsley
34% protein



Cucumbers
24% protein



Green Pepper
22% protein



Cabbage
22% protein



Tomatoes
18% protein

Protein in Meat:



Beef
25.8% protein



Chicken
23% protein



Eggs
12% protein

Preeclampsia Awareness

2014 Survey Results Show:

PREECLAMPSIA foundation

High overall awareness of preeclampsia among expectant and new mothers*

83% had heard of preeclampsia



Yet despite high overall awareness, there is less knowledge of the symptoms



More than half
of respondents did not associate many known symptoms with preeclampsia

Most are also aware that this serious condition related to high blood pressure requires immediate medical evaluation

99% knew
preeclampsia is serious, even life-threatening, for mother and baby

88% knew
high blood pressure is a sign of preeclampsia

96% would call
their doctor or midwife if they experienced symptoms

Other important aspects of preeclampsia are also less known

44% didn't know
that preeclampsia can occur up to six weeks after delivery



46% didn't know
that women with preeclampsia are at greater risk for future health problems



*Survey conducted among visitors to the BabyCenter website from January 17 to January 20, 2014. Total of 1,591 respondents completed the survey; qualified respondents defined as female U.S. residents, 18 years or older, who are pregnant or have at least one child three years of age or younger.

Survey by BabyCenter®

Design by rEVO Biologics Inc.



"Let us understand PIH better for managing patients more efficiently."

Preeclampsia Awareness Saves Lives



Thank You !