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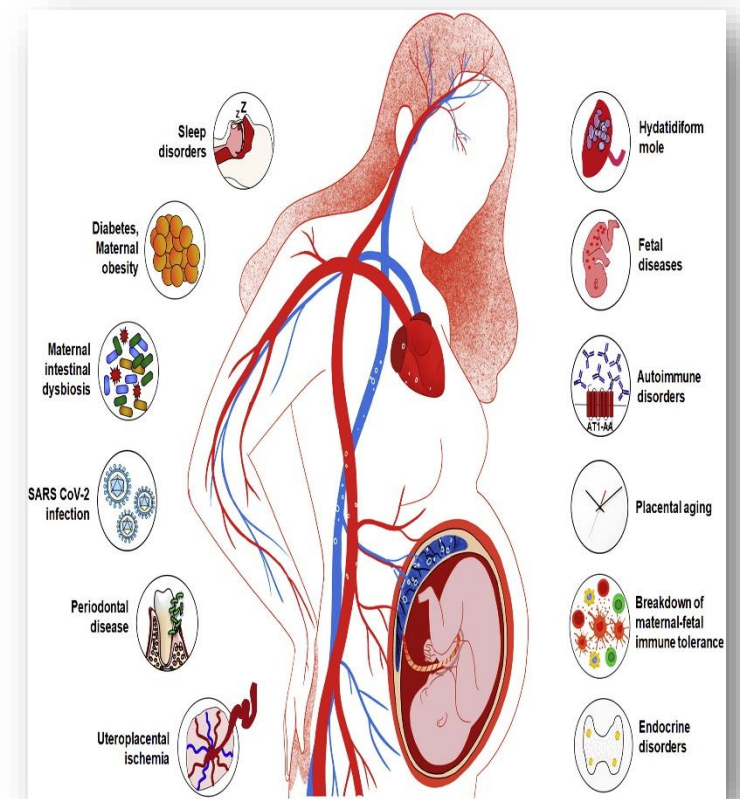
Predikcija i prevencija preeklampsije

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Definicija

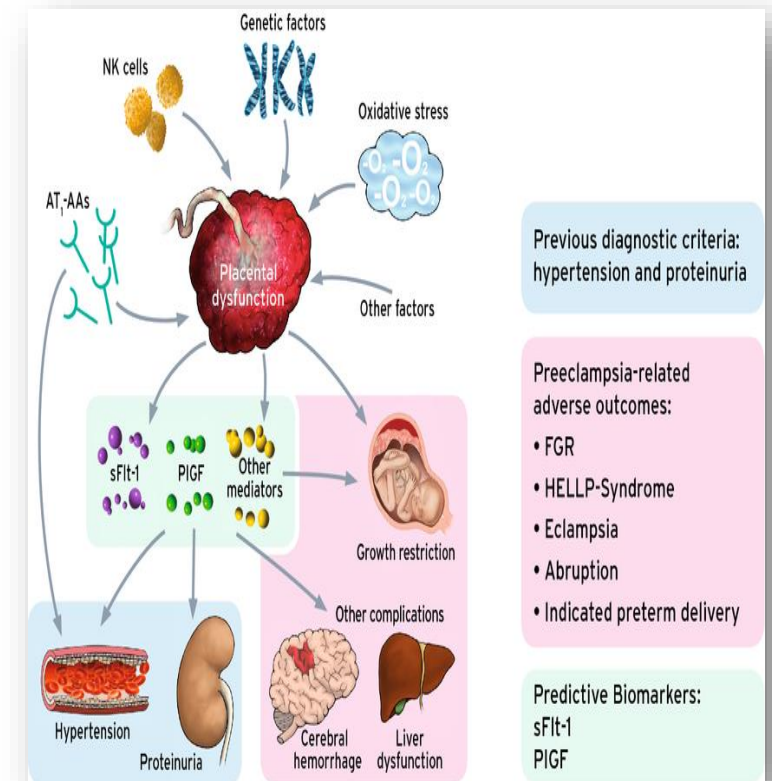
- ❖ Multiorganski poremećaj, specifičan za trudnoću koji odlikuje pojava: a) hipertenzije ($> 140/90$ mmHg), b) proteinurije c) edema
posle 20. nedelje gestacije
- ❖ Javlja se u 2-8% trudnoća i najznačajniji je uzrok smrtnog ishoda majke širom sveta.



Etioopatogeneza

- Relativna placentna ishemija i oksidativni stres
- **Disbalans angiogenih modulatora u krvi majke**
- **Povećana koncentracija** anti-angiogenih faktora: soluble fms-like tyrosine kinase 1 (**sFlt-1**) i solubilnog endoglina (**sEng**)
- **Snižena koncentracija pro-angiogenih faktora:** vascular endothelial growth factor (**VEGF**) i placental growth factor (**PlGF**)

- **PlGf** počinje da raste između 11. i 12. nedelje gestacije
- Pik u 30. nedelji, nakon toga opada koncentracija
- **sFlt** raste nakon 22. nedelje kod PE
- **Preeklampsija: PlGf snižen / sFlt povišen**, snižen PAPP-A (isključena aneuploidija), niska fetalna frakcija cfDNA



Cilj skrininga

- Identifikacija trudnica sa visokim rizikom za razvoj preeklampsije u asimptomatskoj populaciji
- Blagovremeno uvođenje terapije kao prevencija



Fetal Medicine Foundation Kalkulator



- Od 11 + 0 do 14 + 1 nedelja gestacije – **skrining u prvom trimestru, najpoželjnije**
- Od 14 + 1 do 24 + 6 nedelja gestacije – **skrining u drugom trimestru**
- Od 30 + 0 do 37 + 6 kod **pacijentkinja sa preeklampsijom za procenu rizika od razvoja teških formi i planiranja završavanja trudnoće**



Skrining I trimestra

<p>Pregnancy type</p> <p>Singleton or twins <input type="text"/></p> <p>Pregnancy dating</p> <p>Fetal crown-rump length <input type="text"/> mm (45-84 mm)</p> <p>Examination date <input type="text"/></p> <p>Maternal characteristics</p> <p>Date of birth <input type="text"/></p> <p>Height <input type="text"/> cm <input type="text"/> ft <input type="text"/> in</p> <p>Weight <input type="text"/> kg <input type="text"/> lbs</p> <p>Racial origin <input type="text"/></p> <p>Smoking during pregnancy <input type="radio"/> Yes <input type="radio"/> No</p> <p>Mother of the patient had PE <input type="radio"/> Yes <input type="radio"/> No</p> <p>Conception method <input type="text"/></p>	<p>Medical history</p> <p>Chronic hypertension <input type="radio"/> Yes <input type="radio"/> No</p> <p>Diabetes type I <input type="radio"/> Yes <input type="radio"/> No</p> <p>Diabetes type II <input type="radio"/> Yes <input type="radio"/> No</p> <p>Systemic lupus erythematosus <input type="radio"/> Yes <input type="radio"/> No</p> <p>Anti-phospholipid syndrome <input type="radio"/> Yes <input type="radio"/> No</p> <p>Obstetric history</p> <p><input type="radio"/> Nulliparous (no previous pregnancies at ≥ 24 weeks)</p> <p><input type="radio"/> Parous (at least one pregnancy at ≥ 24 weeks)</p> <p>Biophysical measurements</p> <p>Mean arterial pressure ⁱ <input type="text"/> mmHg</p> <p>Mean uterine artery PI ⁱ <input type="text"/></p> <p>Date of measurement <input type="text"/></p>	<p>Systemic lupus erythematosus <input type="radio"/> Yes <input type="radio"/> No</p> <p>Anti-phospholipid syndrome <input type="radio"/> Yes <input type="radio"/> No</p> <p>Obstetric history</p> <p><input type="radio"/> Nulliparous (no previous pregnancies at ≥ 24 weeks)</p> <p><input checked="" type="radio"/> Parous (at least one pregnancy at ≥ 24 weeks)</p> <p>Details of last previous pregnancy at ≥ 24 weeks</p> <p>Preeclampsia <input type="radio"/> Yes <input type="radio"/> No</p> <p>Date of delivery <input type="text"/></p> <p>Gestation at delivery <input type="text"/> weeks <input type="text"/> days</p> <p>Inter-pregnancy interval <input type="text"/> years</p>
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Skrining I trimestra

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_____ years

Biophysical measurements

Mean arterial pressure ⁱ
_____ mmHg

Mean uterine artery PI ⁱ

Date of measurement
dd-mm-yyyy

Biochemical measurements

Includes serum PLGF
 No MoM Raw data

Includes serum PAPP-A
 No MoM Raw data

Serum PAPP-A
_____ MoM

Date of measurement
dd-mm-yyyy

Calculate risk

The Fetal Medicine Foundation

Measurement 1

	Left arm	Right arm
Systolic	<input type="text"/>	<input type="text"/>
Diastolic	<input type="text"/>	<input type="text"/>

Measurement 2

	Left arm	Right arm
Systolic	<input type="text"/>	<input type="text"/>
Diastolic	<input type="text"/>	<input type="text"/>

_____ mmHg

Mean uterine artery PI ⁱ

Date of measurement
dd-mm-yyyy

Biochemical measurements

Includes serum PLGF
 No MoM Raw data

Includes serum PAPP-A
 No MoM Raw data

The Fetal Medicine Foundation

Date of delivery
dd-mm-yyyy

Gestation at delivery
_____ weeks _____ days

Inter-pregnancy interval
_____ years

Biophysical measurements

_____ ⁱ

Left	<input type="text"/>
Right	<input type="text"/>

Date of measurement
dd-mm-yyyy



Biochemical measurements

Includes serum PLGF
 No MoM Raw data

Includes serum PAPP-A
 No MoM Raw data



Skrining II i III trimestra

Please record the following information and then press Calculate.

Pregnancy type
Singleton or twins

Pregnancy dating
Gestational age
 weeks days
Examination date

Biochemical measurements

Includes serum PLGF
 No MoM Raw data

Includes serum sFLT-1
 No MoM Raw data

Serum PLGF
 MoM

Serum sFLT-1
 MoM

Date of measurement

Calculate risk

Preporuke i zaključak

- Cut off – 1:100
- Sve trudnice u vreme skrininga I trimestra
- **Idealno od 11. do 13. nedelje gestacije**
- Uvođenje terapije najkasnije do 16. nedelje gestacije
- **Aspirin 100 – 150 mg dnevno do 36. nedelje gestacije**
- Redovni pregledi i merenje pritiska u kućnim uslovima
- Fetalna biometrija svake 3 do 4 nedelje





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Hvala!