ODABIR HORMONSKE KONTRACEPCIJE KOD PACIJENTICA S PREDMENSTRUALNIM PROMJENAMA RASPOLOŽENJA, DISMENOREJOM I SEKSUALNOM DISFUNKCIJOM

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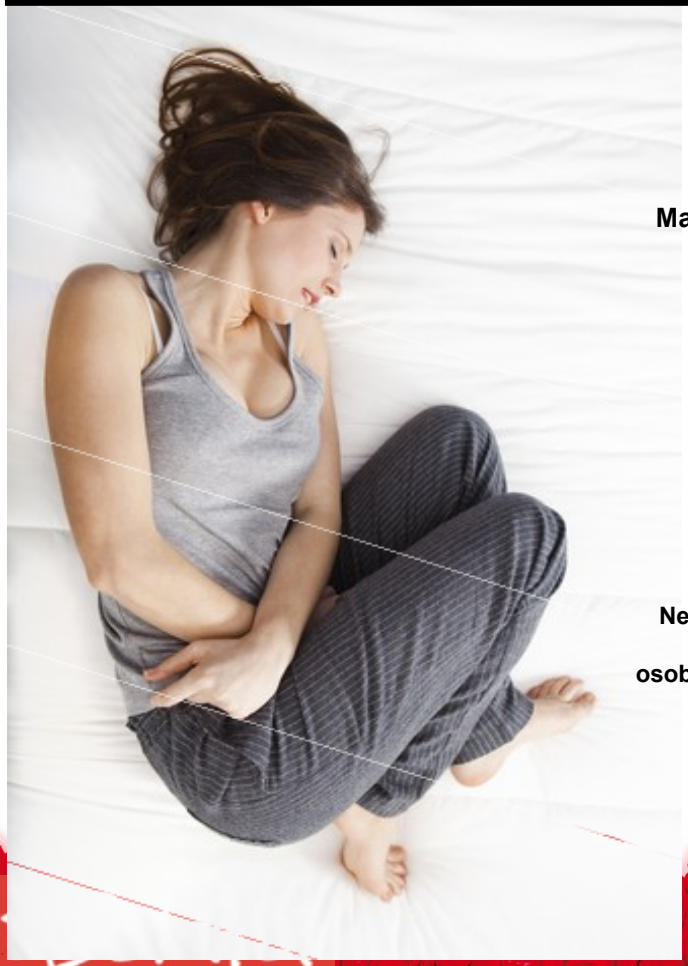
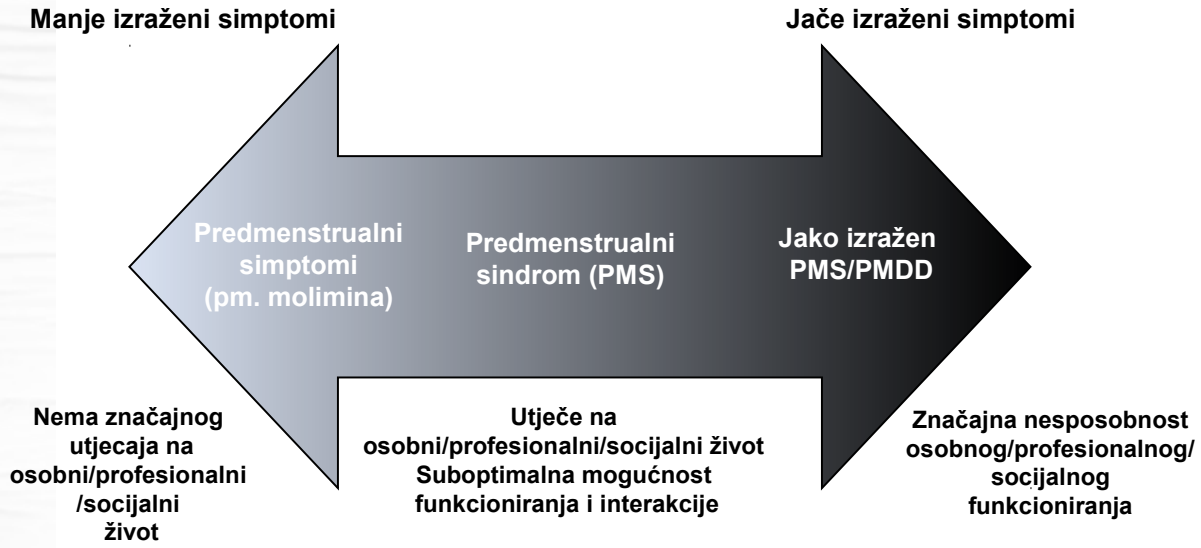
Zavod za humanu reprodukciju i ginekološku endokrinologiju

PREDMENSTRUALNI POREMEĆAJI - definicija

spektar psihičkih, fizičkih simptoma te promjena ponašanja koji se javljaju tijekom luteinske faze menstruacijskog ciklusa i prestaju nekoliko dana nakon početka menstruacije





DIJAGNOSTIČKI KRITERIJI

ACOG PMS dijagnostički kriteriji, 2000

Afektivni simptomi	**Somatski simptomi**
Depresija	Napetost dojki
Ljutnja	Napuhnutost abdomena
Iritabilnost	Glavobolja
Anksioznost	Oticanje ekstremiteta
Smušenost	
Odbacivanje socijalnih kontakata	

- **mora biti prisutan barem jedan psihički i jedan fizički simptom kroz 3 prethodna menstruacijska ciklusa**
- **simptomi se javljaju 5 dana prije menstruacije i prestaju 4 dana od početka menstruacije**
- **mora postojati period bez simptoma do 13 dc (ovulacije)**
- **simptomi značajno interferiraju s socijalnom i radnom sposobnosti**
- **dijagnoza se postavlja na osnovu prospektivnog praćenja kroz 2 – 3 ciklusa**
- **egzacerbacija druge bolesti mora biti isključena**

ACOG Practice Bulletin, 2000

PREDMENSTRUAL DYSPHORIC DISORDER (PMDD)

Diagnostic and Statistical Manual of Mental Disorders-IV^{ed}

Mora biti barem jedan simptom (ključni simptomi)
Afektivna labilnost (nagle promjene raspoloženja)
Anksioznost/napetost
Depresivno raspoloženje ili beznađe
Iritabilnost
Zajedno s
Smanjen interes za svakodnevne aktivnosti
Otežana koncentracija
Nedostatak energije
Promjene apetita
Promjene spavanja (hipersomina ili insomnia)
Osjećaj izostanka samokontrole
Drugi fizički simptomi (npr. napetost dojki/bol u trbuhu)

- 5 simptoma (jedan ključni)
- simptomi limitirani na luteinsku fazu ciklusa
- ne pretstavljaju egzacerbaciju druge bolesti
- simptomi se moraju potvrditi prospektivno kroz 2 ciklusa
- moraju značajno interferirati sa socijalnim/obiteljskim/radnim aktivnostima

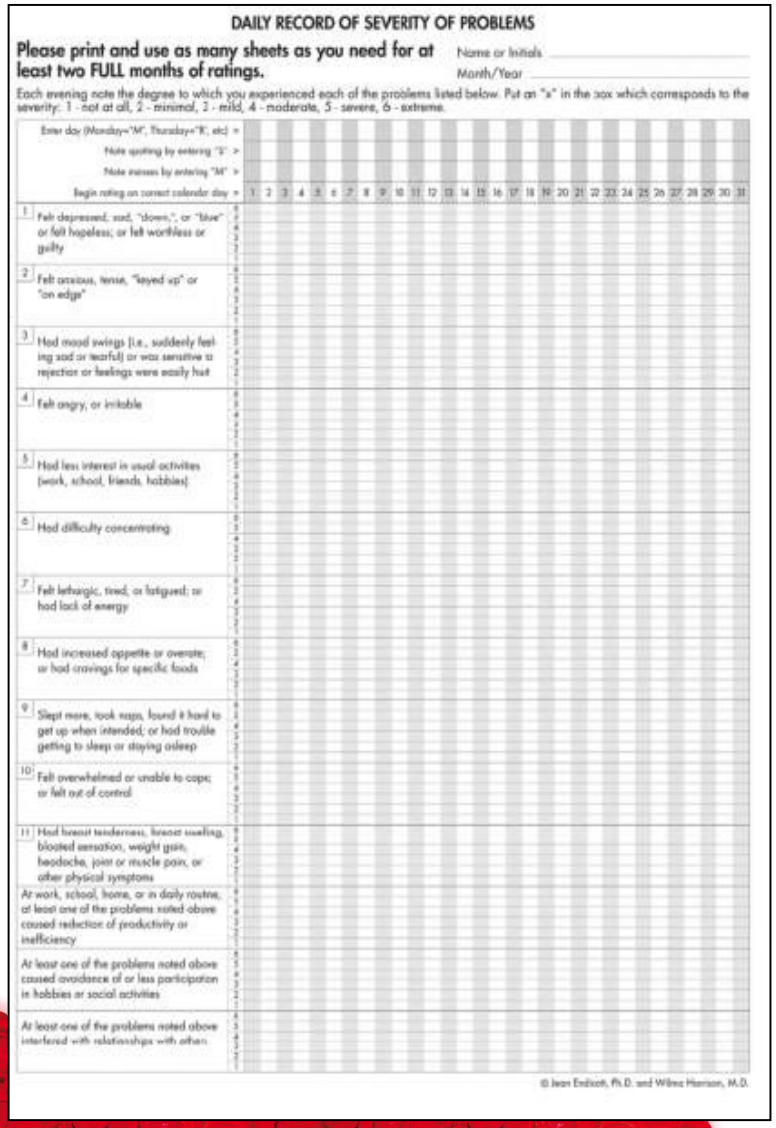
Premenstrual dysphoric disorder. In: Diagnostic and statistical and manual of mental disorders, 4th edn. Tex rev. DSM0IV-TR. Washington, DC: American Psychiatric Association 2000:771–4

Upitnici – testovi za postavljanje dijagnoze PMS/PMDD

Prema smjernicama – postavljanje dijagnoze zahtijeva praćenje simptoma kroz dva ciklusa

- **UPITNICI:**
- Omogućavaju točnu dijagnozu
- Omogućavaju isključenje ozbiljnijih bolesti
- Uključuju pacijentice u obradu
- Štede vrijeme

  - DRSP (Daily Reccord of Severity of Problems)
  - COPE (Calendar of Premenstrual Experiences)
  - PSST (Premenstrual Symptoms Screening Tool)
  - VAS (Visual Analogue Scale)



DAILY RECORD OF SEVERITY OF PROBLEMS

Please print and use as many sheets as you need for at least two FULL months of ratings.

Name or Initials _____

Month/Year _____

Each evening note the degree to which you experienced each of the problems listed below. Put an "x" in the box which corresponds to the severity: 1 - not at all, 2 - minimal, 3 - mild, 4 - moderate, 5 - severe, 6 - extreme.

Enter day (Monday="M", Thursday="R", etc) >
Note spotting by entering "S" >
Note menses by entering "M" >
Begin rating on correct calendar day > 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

1 Felt depressed, sad, "down," or "blue" or felt hopeless; or felt worthless or guilty
2 Felt anxious, tense, "keyed up" or "on edge"
3 Had mood swings (i.e., suddenly feeling sad or tearful) or was sensitive to rejection or feelings were easily hurt
4 Felt angry, or irritable
5 Had less interest in usual activities (work, school, friends, hobbies)
6 Had difficulty concentrating
7 Felt lethargic, tired, or fatigued; or had lack of energy
8 Had increased appetite or overate; or had cravings for specific foods
9 Slept more, took naps, found it hard to get up when intended; or had trouble getting to sleep or staying asleep
10 Felt overwhelmed or unable to cope; or felt out of control
11 Had breast tenderness, breast swelling, bloated sensation, weight gain, headache, joint or muscle pain, or other physical symptoms
At work, school, home, or in daily routine, at least one of the problems noted above caused reduction of productivity or inefficiency
At least one of the problems noted above caused avoidance of or less participation in hobbies or social activities
At least one of the problems noted above interfered with relationships with others

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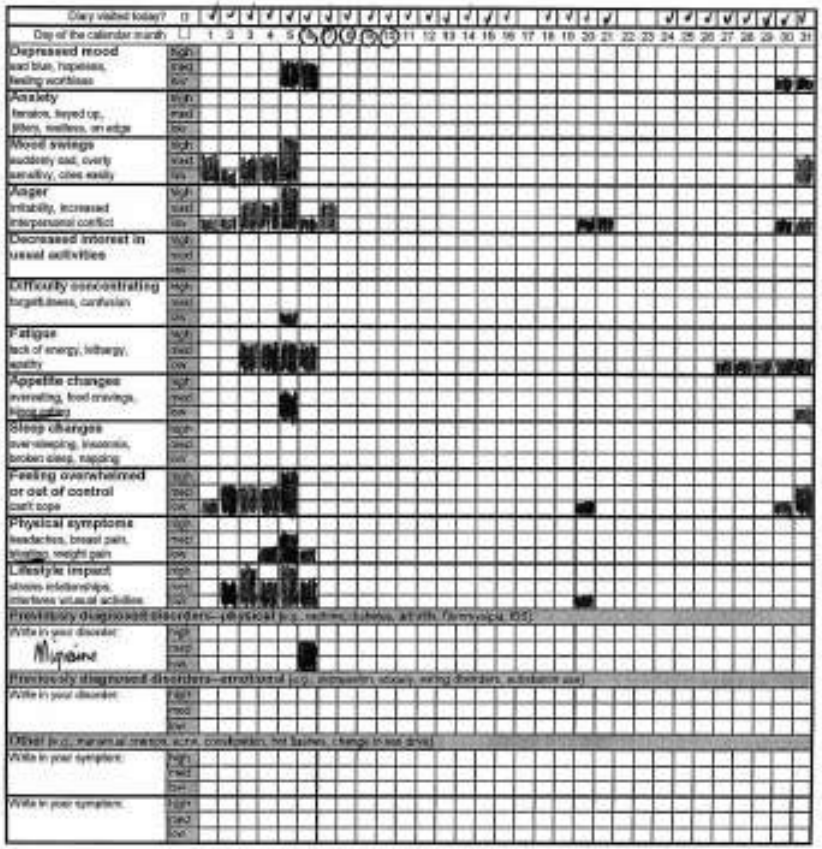
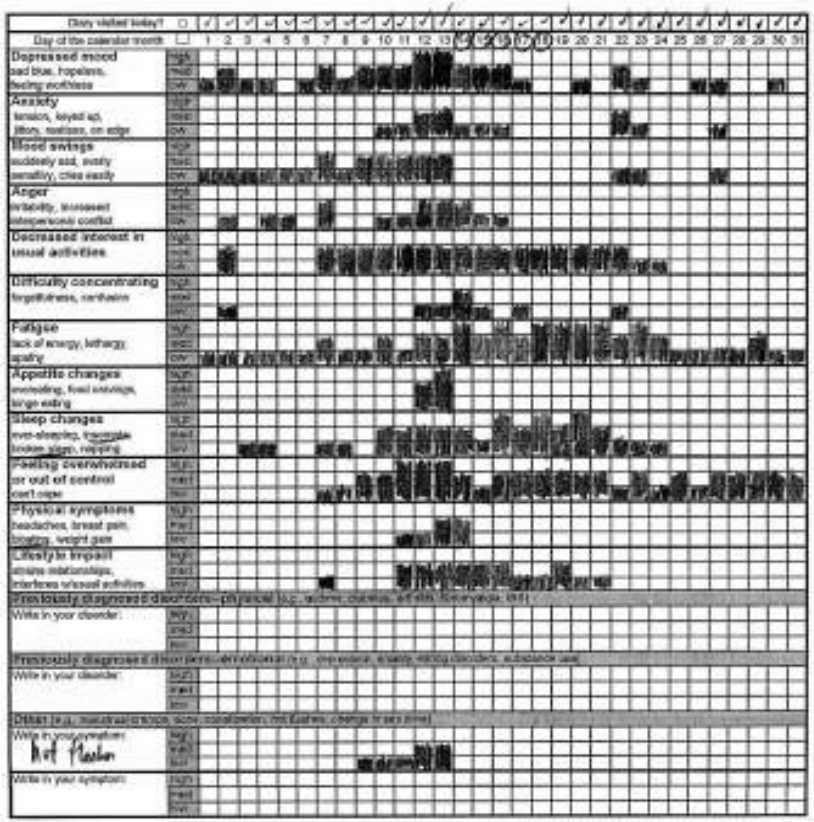
GEDEON RICHTER

PMS/PMDD vs PME



PMS/PMDD



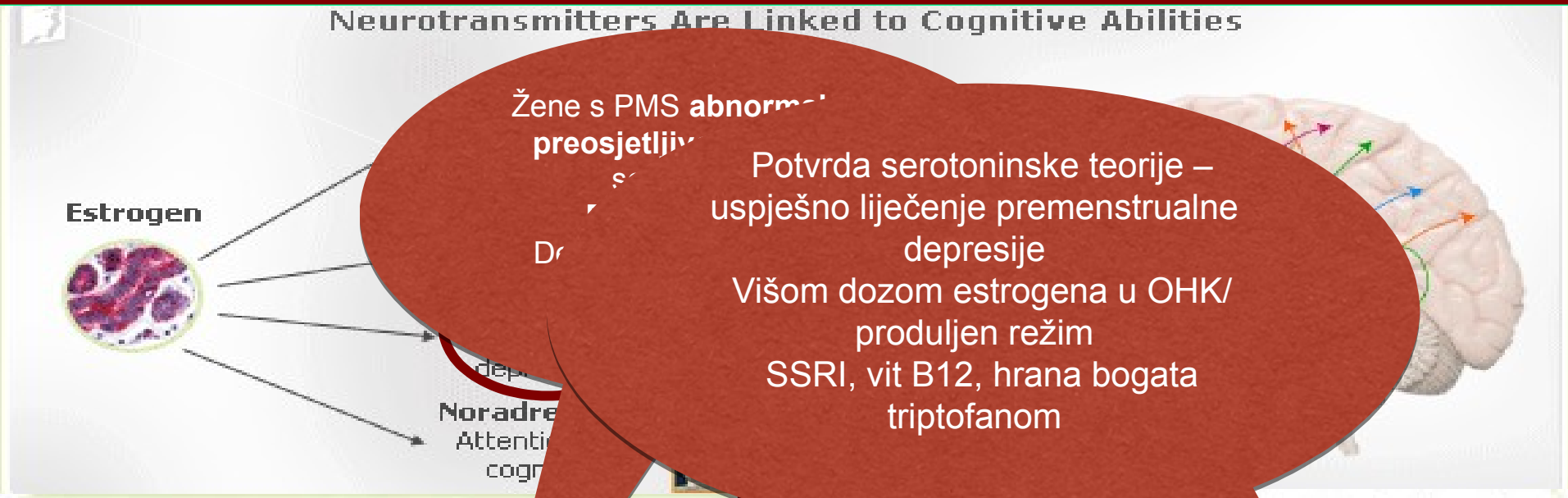
PME

Belara
. . . simply feminine

PREDMENSTRUALNI POREMEĆAJI - učestalost

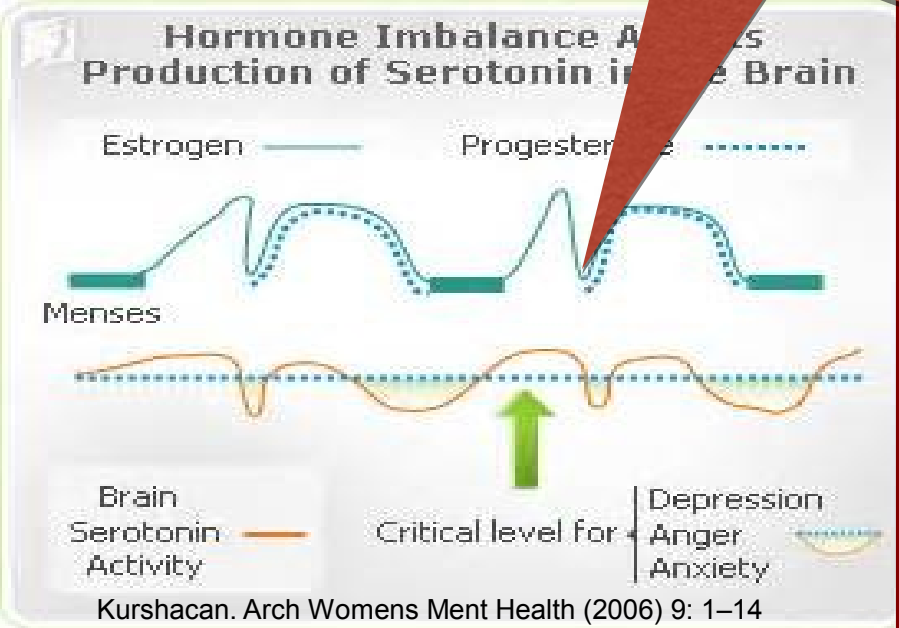
Ginsburg KA, Dinsay R. Premenstrual syndrome. In: Ransom SB, ed. Practical Strategies in Obstetrics and Gynecology.Philadelphia: W.B. Saunders Company, 2000: 684–694.

ESTROGENI –POTIČU SINTEZU SEROTONINA I TRIPTOFANA; POTIČU AKTIVNOST SEROTONINA - POZITIVNO PSIHOTROPNO DJELOVANJE



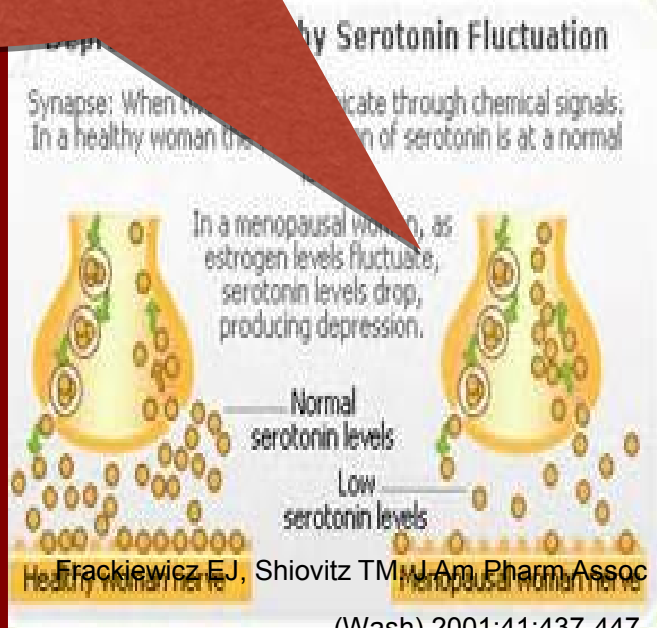
Žene s PMS **abnorm**
preosjetljiv

Potvrda serotoninske teorije – uspješno liječenje premenstrualne depresije
Višom dozom estrogena u OHK/ produljen režim
SSRI, vit B12, hrana bogata triptofanom



Kurshacan. Arch Womens Ment Health (2006) 9: 1–14

Aktivnost serotonina slijedi aktivnost estradiola
-
Fiziološki pad pred menstruaciju



Frackiewicz EJ, Shiovitz TM. J Am Pharm Assoc (Wash) 2001;41:437-447

PROGESTERON – POTIČE ANKSIOLIZU I SEDACIJU

Neki progestini ?

PRENANOLON SULFATE

DHEAS

PCOS ?

potiče raspoloženje

≠ ≠

P_4

5αR 3αHSD

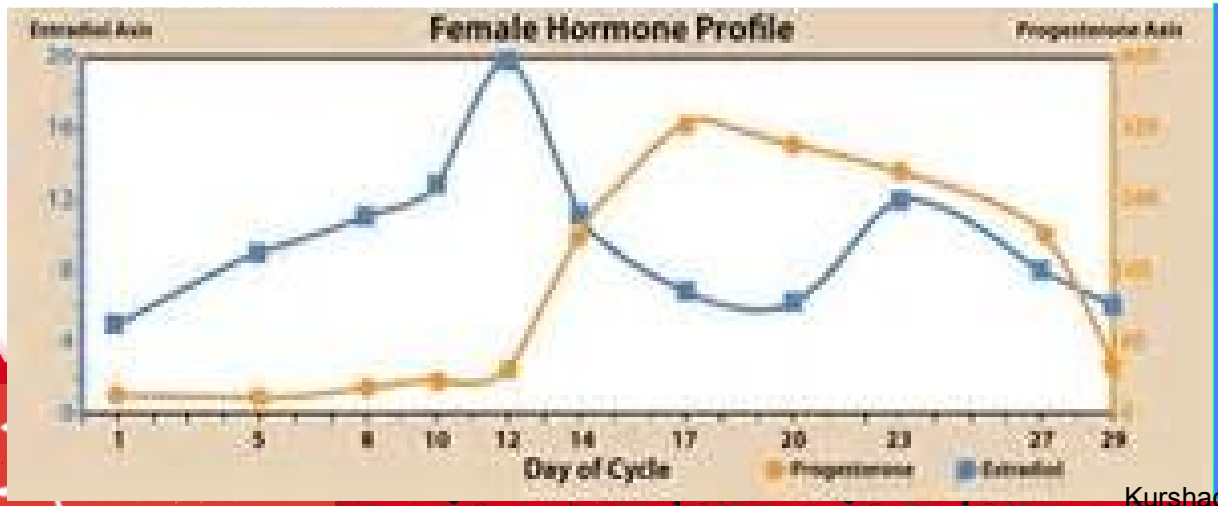
ALLO

GABA-A receptor

Neuralna inhibicija
učinak poput benzodiazepina

potiče sedaciju

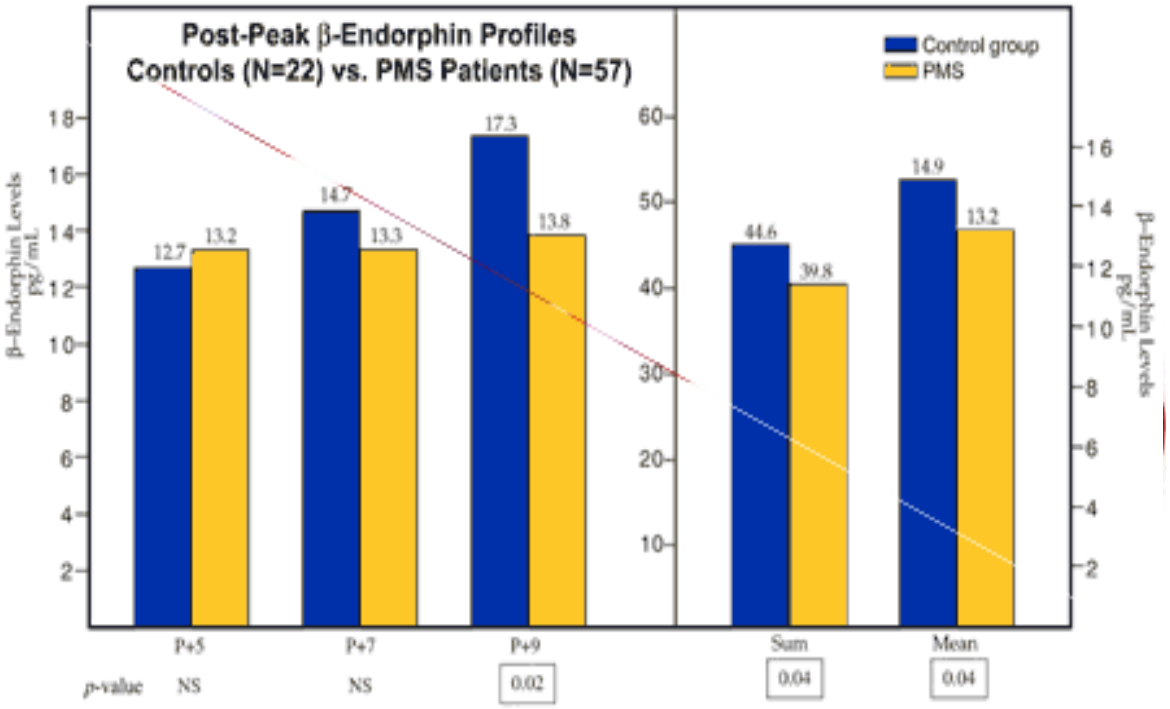
potiče aksiolizu



Premenstrualni pad estrogena i progesterona povezuje se s nastankom anksioznosti I promjena raspoloženja

Kurshacan. Arch Womens Ment Health (2006) 9: 1–14

ZBOG ČEGA NEKE ŽENE IMAJU PM moliminu/PMS/PMDD?



- Progesteron
  - vrijednosti - bez razlike
  - Receptori – nema studija
  - Allopregnanolone – NIŽI
  - B endorfini - NIŽI
- Estrogen – bez razlike
- Prolaktin – bez razlike
- Androgeni – bez razlike
- Aldosteron - bez razlike

Žene S PMS/PMDD imaju:

- **Snižen allopregnanolon**
- **Snižene β-endorfine**

2. Abnormalnu preosjetljivost na pad serotonina

Monteleone et al., 2000; Rapkin et al., 1997

GEDEON RICHTER

OHK I PROMJENE RASPOLOŽENJA

ORALNA HO **UČINAK NA**

- **Korisnice OH** **na nekorisnice**
- **Mon**

MANJ **VNE PROMJEN** **K**

Ili samo žene s PMS/PMDD različito reagiraju na egzogene hormone u odnosu na ostale ???

Imaju li različiti progestini različito djelovanje na neurosteroide u mozgu ???

Oinonen [illegible] Disord 2002;70(3):229-40.

OHK I PROMJENE RASPOLOŽENJA

Table 3. Summary of studies investigating the relationship between OCs and mood in women with PMS symptoms

Study	OC used	Subjects	Duration of OC use	Outcome	Strengths/weaknesses of study
Apter et al., 2003	DRSP (30 µg ethinyl estradiol and 3 mg DRSP)	336 women reporting minor PMS duri… presc… (…	6 tre…		1. *PMS history taken for 3 cycles … to screening. At least one … d 1 psychological … d in 2 of 3* … d. …tings
Borenstein et al., 2003	DRSP (30 µg ethinyl estradiol and 3 mg DRSP)				…d …atings of
Freeman et al., 2001	DRSP (30 µg ethinyl estradiol and 3 mg DRSP)	82 women with diagnosed PMDD according to criteria in DSM-IV completed study	3 treatment cycles	DRSP/EE significantly better than placebo at reducing PMS symptoms of increased appetite, food cravings, acne, desire to be alone, hot flushes. DRSP/EE group showed a 10% greater change from baseline compared to the placebo group for Factor 1	1. *Double-blind, placebo controlled study.* 2. *PMDD confirmed with daily prospective ratings using the COPE.* 3. Small sample size – not large enough to detect significant differences between active and placebo groups
				at baseline, women who had been depressed at baseline and were taking the OC reported greater improvement premenstrually in impairment at work, needing sleep, and lack of energy.	*mood during treatment phase.*

Ili samo žene s PMS/PMDD različito reagiraju na egzogene hormone u odnosu na ostale ???

HORMONSKA KONTRACEPCIJA NEMA UTJECAJ NA PROMJENU RASPOLOŽENJA U VEČINE ŽENA (71,4%)

- **POBOLJŠANJE SIMPTOMA – KOD ŽENA S PREDMENSTRUACIJSKOM MOLIMINOM I DISMENOREJOM**
- **POGORŠANJE SIMPTOMA - KOD ŽENA SA PREDMENSTRUALNOM DEPRESIJOM**

Joffe H i sur. Am J Obstet Gynecol, 2003.

Oinonen&Mazmanian, J Affect Disord 2002;70(3):229-40.

EE+LNG

Imaju li različiti progestini različito djelovanje na neurosteroide u mozgu ???

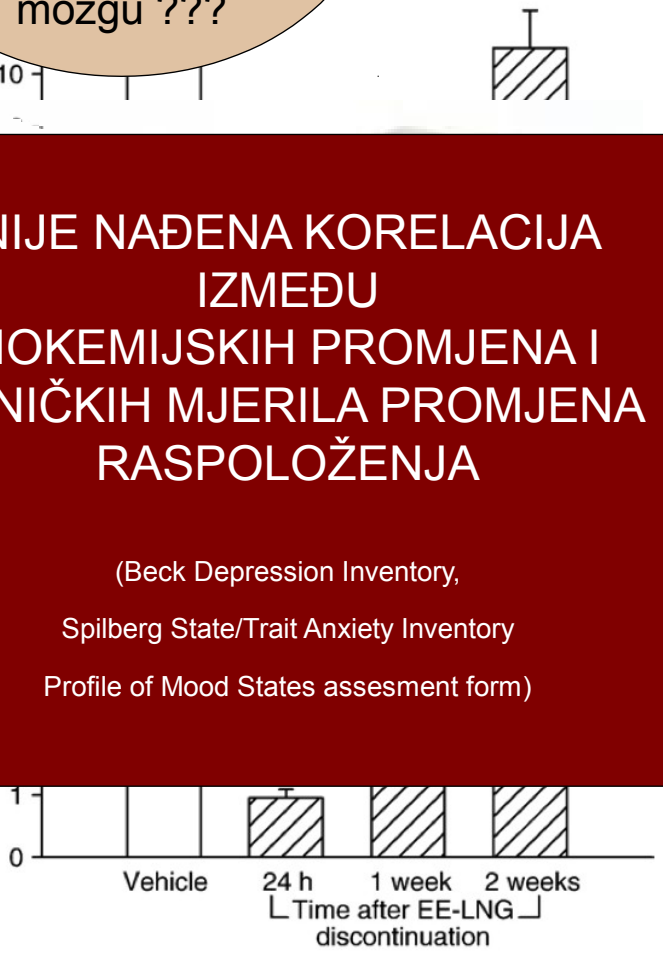
Životinje dobivale 30 mcg EE+0.25 mg LNG/6tjedana
Nađena redukcija u korteksu:
79% alopregnenolon
ANKSIOZNE PROMJENE PONAŠANJA

NIJE NAĐENA KORELACIJA IZMEĐU BIOKEMIJSKIH PROMJENA I KLINIČKIH MJERILA PROMJENA RASPOLOŽENJA

(Beck Depression Inventory,

Spilberg State/Trait Anxiety Inventory

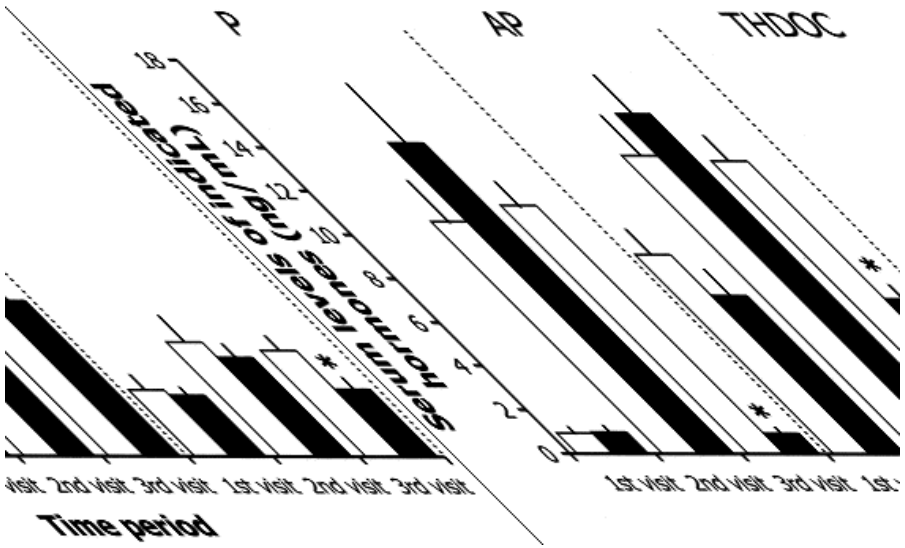
Profile of Mood States assesment form)

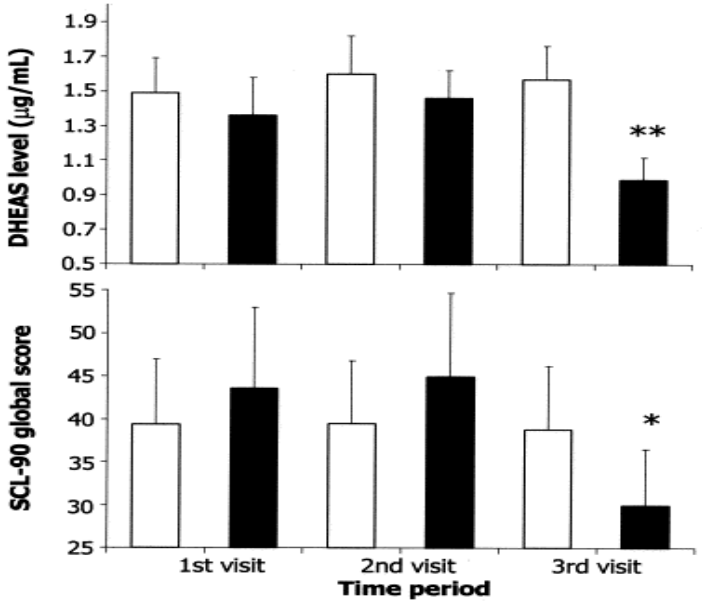


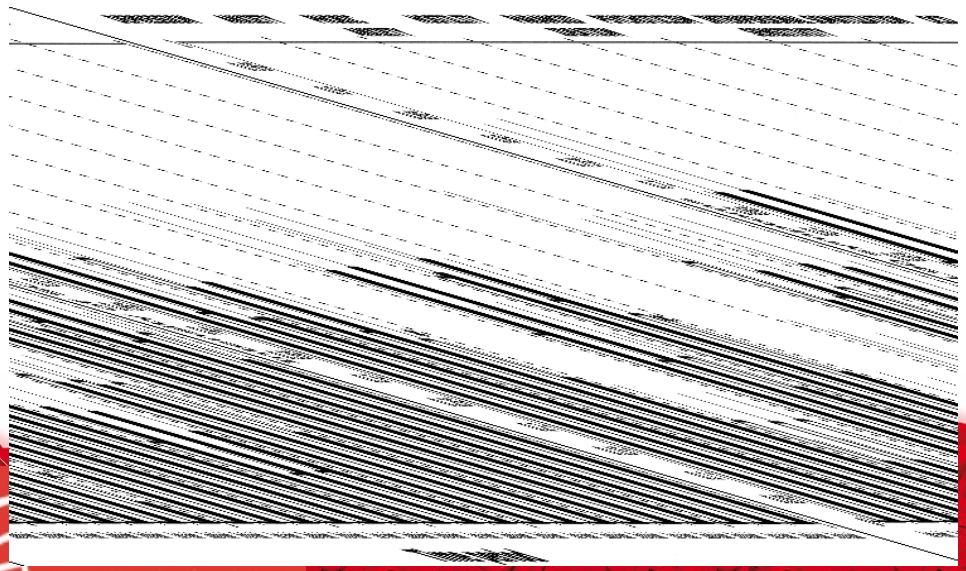
OBJAŠNJENJE:
Kod zdravih žena EE/LNG dovodi do balansa između anksiolitičkog ALLO i antianksiolitičnog DHAS?
Te promjene nisu dovoljne da bi izazvale efekt u zdravih žena?

Follesa P. Neuropharmacology, 2002

EE+DRSP



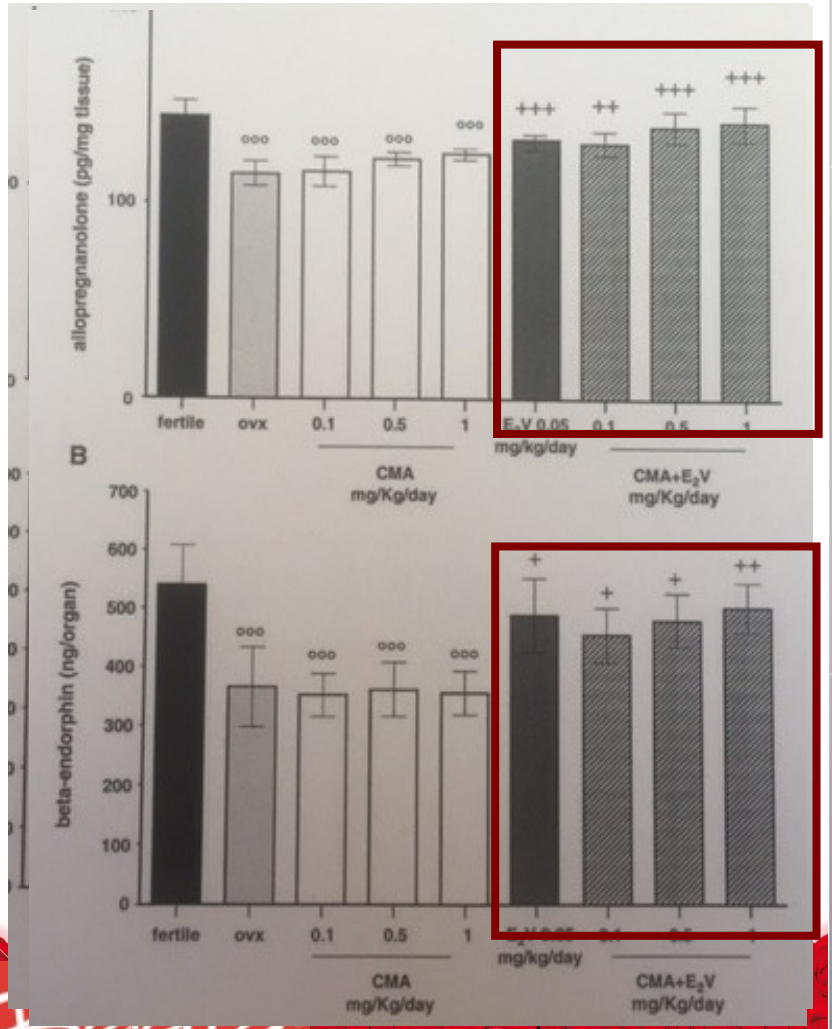




UZ EE+DRSP pad allopregnenolona u odnosu na luteinsku fazu, ali ostaje na razini rane folikulinske faze EE+DRSP drastičan pad DHEAS što pretpostavljeno dovodi do poboljšanja svih parametara kontrole raspoloženja.

Paoletti i sur. Fertil Steril, 2004

CMA OD SVIH PROGESTINA U OHK DJELUJE U MOZGU NAJSLIČNIJE PROGESTERONU



Nicola Pluchino, Elena Lenzi, Sara Merlini, Andrea Giannini, Alessandra Cubeddu, Elena Casarosa, Silvia Begliuomini, Michele Luisi, Vito Cela, Andrea Riccardo Genazzani*

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Received 25 June 2008; revised 14 January 2009; accepted 14 January 2009

Abstract

Background: Synthetic progestins may have different biological actions depending on the target tissue, the dose administered or the coadministration of an estrogen molecule. The purpose of the present study was to evaluate the neuroendocrine effect of chlormadinone acetate (CMA) administration, analyzing the brain content of allopregnanolone (ALLO), an endogenous neurosteroid γ-aminobutyric acid agonist with anxiolytic properties, and the brain level of β-endorphin (β-END), an endogenous opioid implicated in pain mechanism, emotional state and autonomic control.

Study Design: Seven groups of Wistar ovariectomized (OVX) rats received one of the following treatments: oral CMA at a dose of 0.1, 0.5 or 1 mg/kg per day; estradiol valerate (E_2V) at a dose of 0.05 mg/kg per day; CMA plus E_2V (CMA 0.1 or 0.5 or 1 mg/kg per day + E_2V

CMA POVISUJE ALOPREGNENOLON U HIPOKAMPUSU,
A U KOMBINACIJI SA ESTRADIOLOM I U HIPOTALAMUSU I ADENOHIPOFIZI.

CMA POVISUJE β-ENDORFINE U NEUROINTERMEDIJALNOM LOBUSU I HIPOFIZI

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doi:10.1016/j.contraception.2009.01.005

on γ-aminobutyric acid (GABA-A) receptor, modulating stress, mood and behavior with anxiolytic, sedative and

Pluchino N. Contraception, 2009.

METABOLITI PROGESTERONA U MOZGU – ALLOPREGNANOLON I EPIPREGNANOLON IMAJU IDENTIČNU STRUKTURU KAO I CMA METABOLIT br. 5 u MOZGU

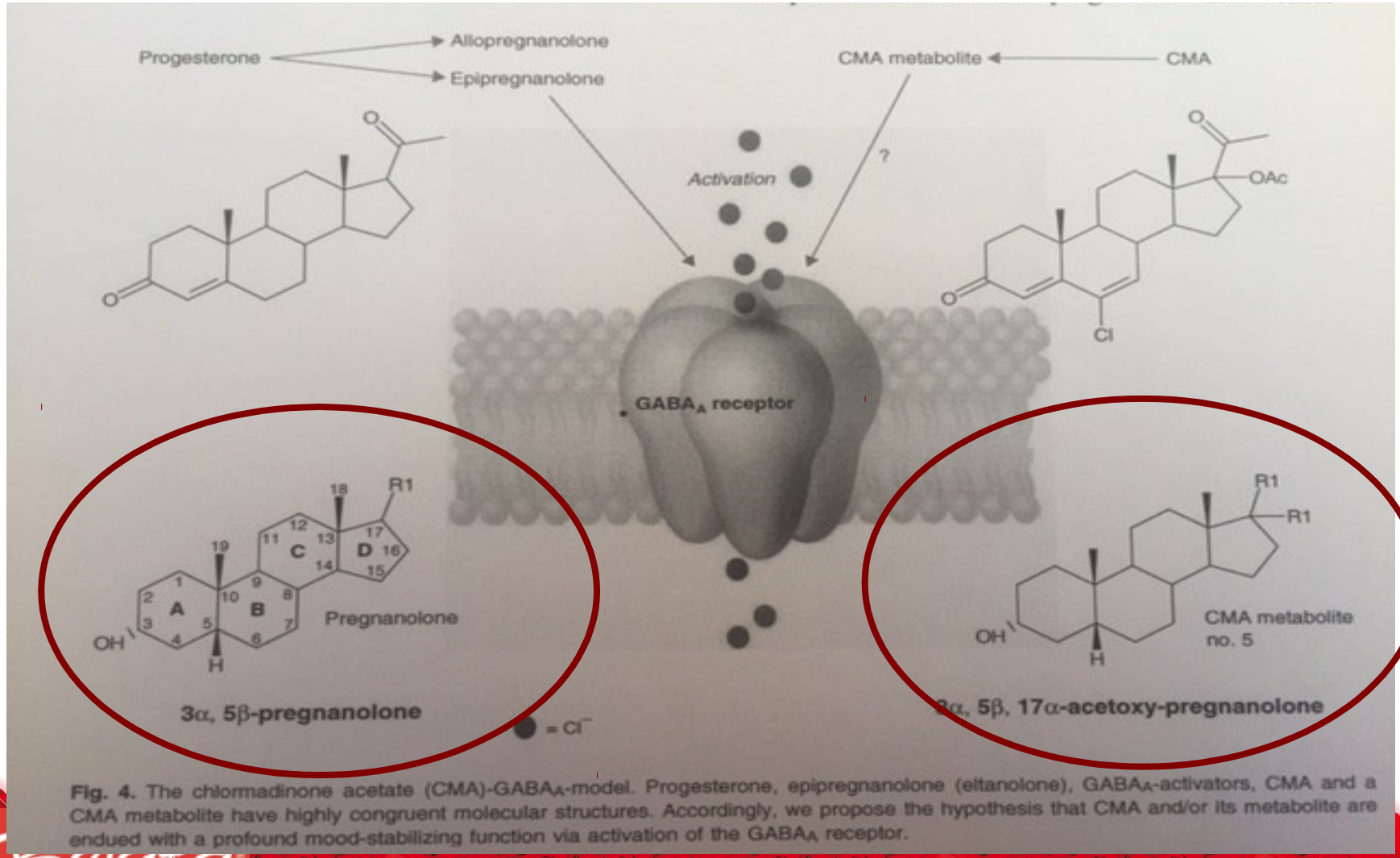
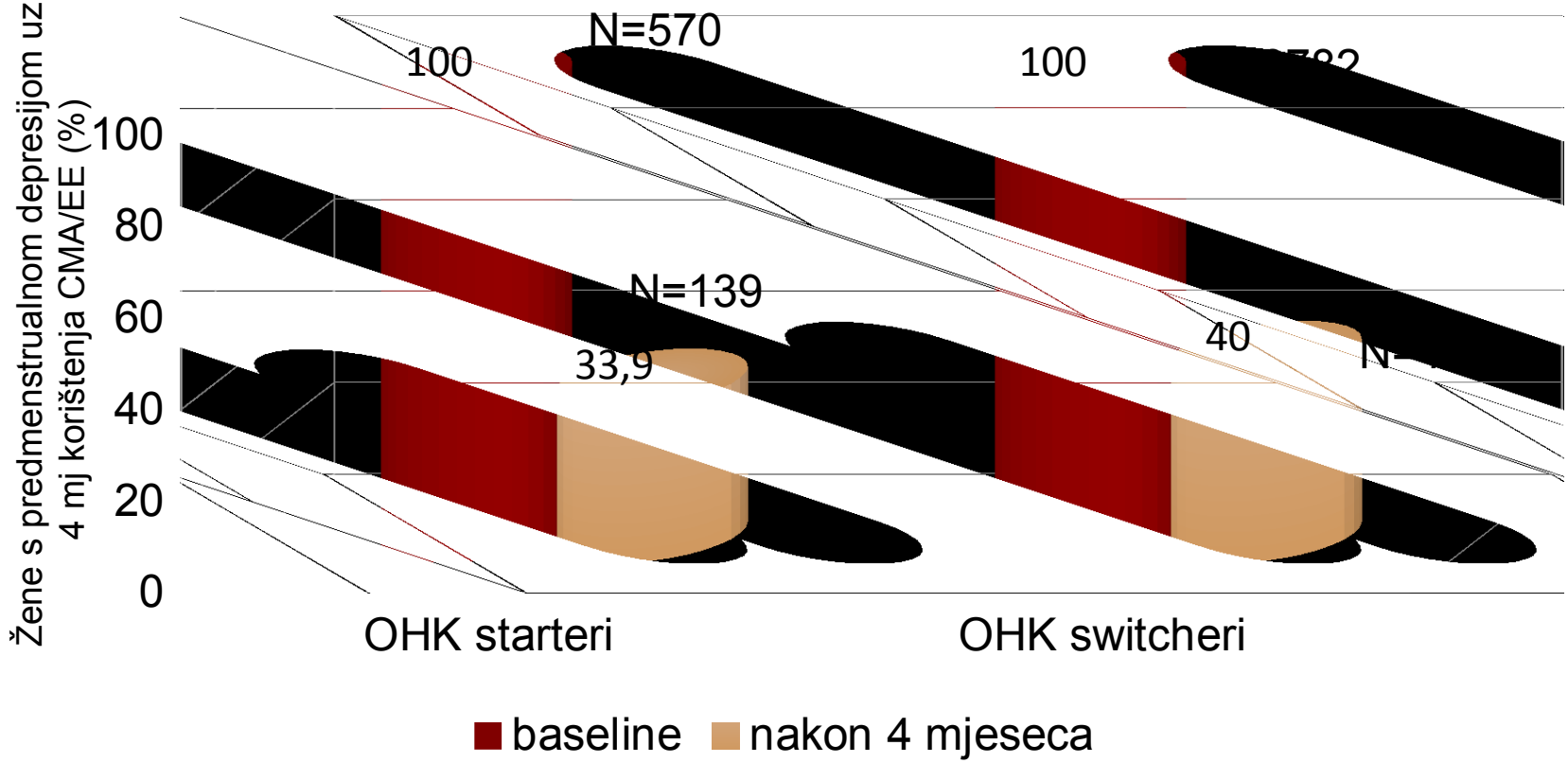


Fig. 4. The chlormadinone acetate (CMA)-GABA$_A$-model. Progesterone, epipregnanolone (eltanolone), GABA$_A$-activators, CMA and a CMA metabolite have highly congruent molecular structures. Accordingly, we propose the hypothesis that CMA and/or its metabolite are endued with a profound mood-stabilizing function via activation of the GABA$_A$ receptor.

(Huber J. Clin Drug Invest 2008

UTJECAJ 0.03 mg EE/CMA 2 mg KOD ŽENA S PREDMENSTRUALNOM DEPRESIJOM

nakon 4 mjeseca korištenja

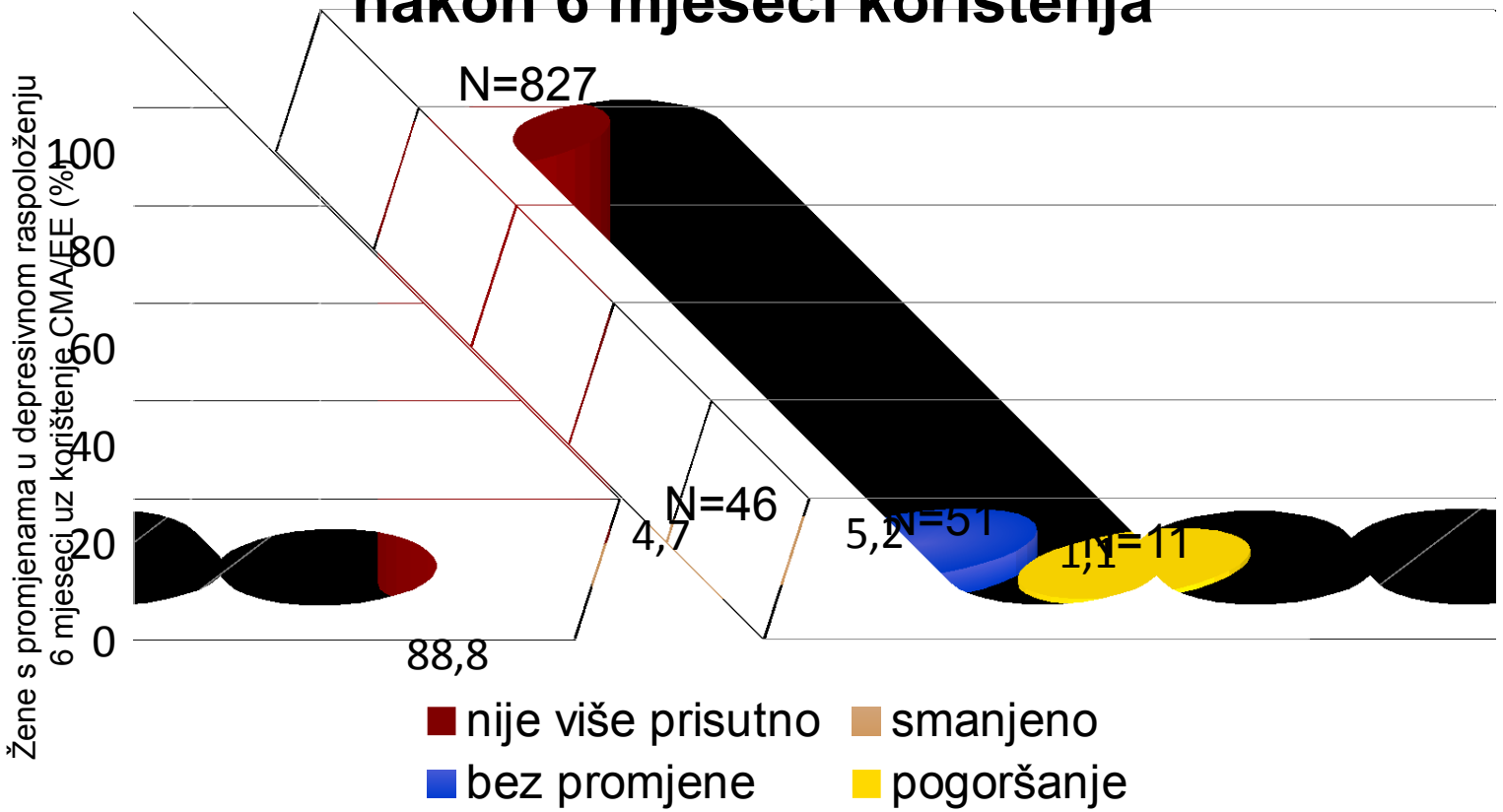


Uz korištenje EE/CMA nakon 4 mjeseca predmenstrualni depresivni sindrom u potpunosti je nestao 72% novih korisnica i 60% žena koje su zbog pogoršanja depresije uz druge kontraceptive prešli na EE/CMA

Huber JC, Heskamp ML, Schramm GA. Effect of an oral contraceptive with chlormadinone acetate mood : analysis of data from four observational studies. Clin Drug Investig. 2008

UTJECAJ 0.03 mg EE/CMA 2 mg KOD ŽENA S PREDMENSTRUALNOM DEPRESIJOM

nakon 6 mjeseci korištenja

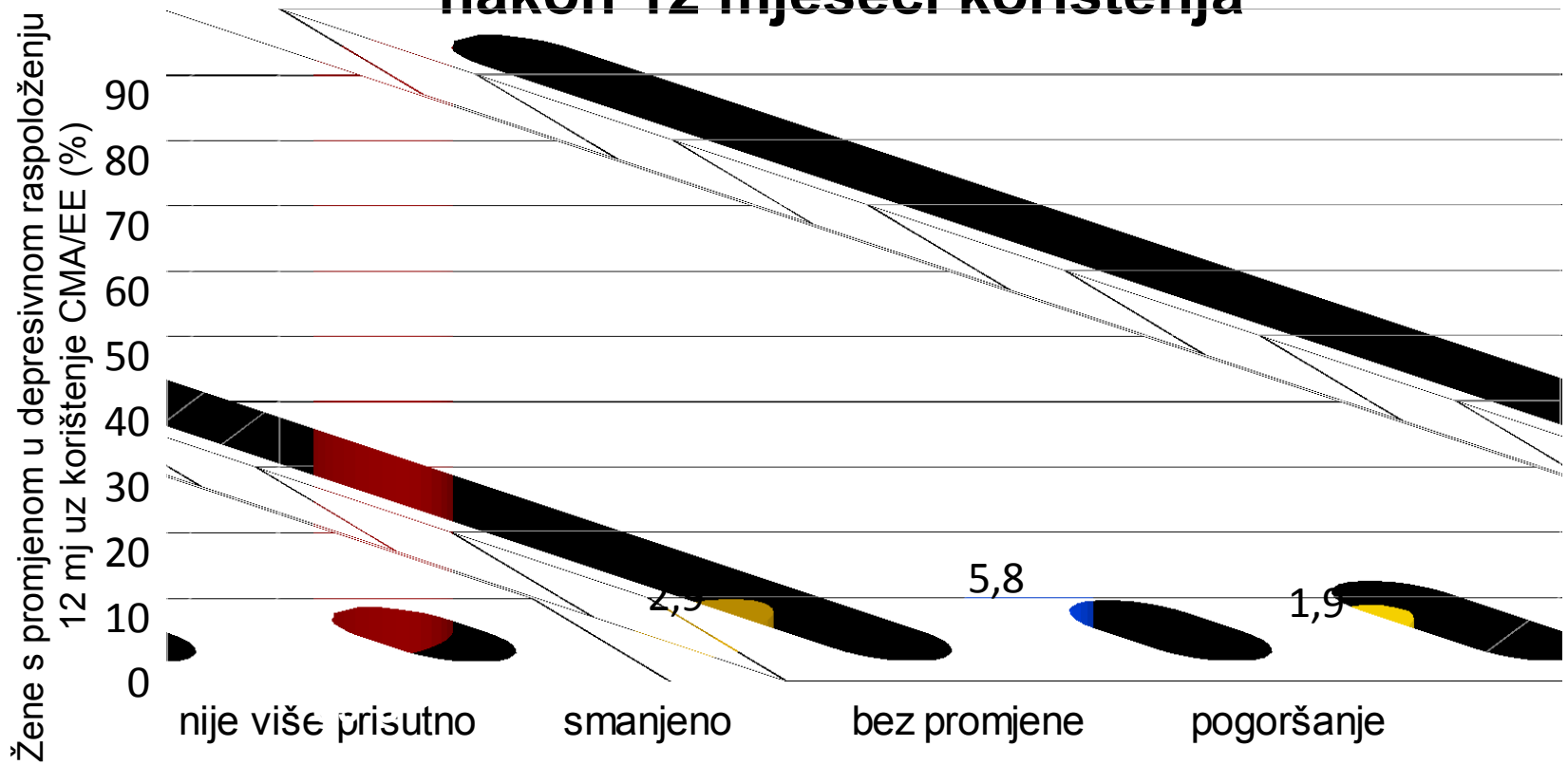


Uz korištenje EE/CMA nakon 6 mjeseci predmenstrualni depresivni sindrom u potpunosti je nestao 88% žena, 4,7% pokazuju smanjenje, 5.2% bez promjene; 1.1% pogoršanje

Huber JC, Heskamp ML, Schramm GA. Effect of an oral contraceptive with chlormadinone acetate mood : analysis of data from four observational studies. Clin Drug Investig. 2008

UTJECAJ 0.03 mg EE/CMA 2 mg KOD ŽENA S PREDMENSTRUALNOM DEPRESIJOM

nakon 12 mjeseci korištenja



Uz korištenje EE/CMA nakon 12 mjeseci zadržan je dobrobitni učinak na predmenstrualni depresivni sindrom u 89.3% žena

Belara simply feminine

Huber JC, Heskamp ML, Schramm GA. Effect of an oral contraceptive with chlormadinone acetate mood : analysis of data from four observational studies. Clin Drug Investig. 2008

PRODULJENI REŽIMI

Table 2. Symptoms and side effects reported during the various phases of the study

	At enrollment	Start of first extended period	End of first extended period	End of second extended period
Total no. of women	109	103	86	72
Depressive moods				
			81.40%	60 83.33%*
			6.98%	4 5.56%
			6.98%	6 8.33%
			4.65%	2 2.78%
			74.42%	57 79.17%*
			10.47%	5 6.94%
				4 5.56%
			4.65%	6 8.33%

...ms and side effects at enrollment

* P‹ 0.005

\# Not significant

ORIGINAL ARTICLES

A Prospective Foll...
Two Extended...
Pills Containing Et...

Daniel Seidman ..., Nina Gordon MD[1], Noga Porat MD[1], Dga...

[1]Department of Obstetrics & Gynecology, Sh... with Sackler Faculty of Medicine, Tel-Aviv University, Ra...

Zaključci:

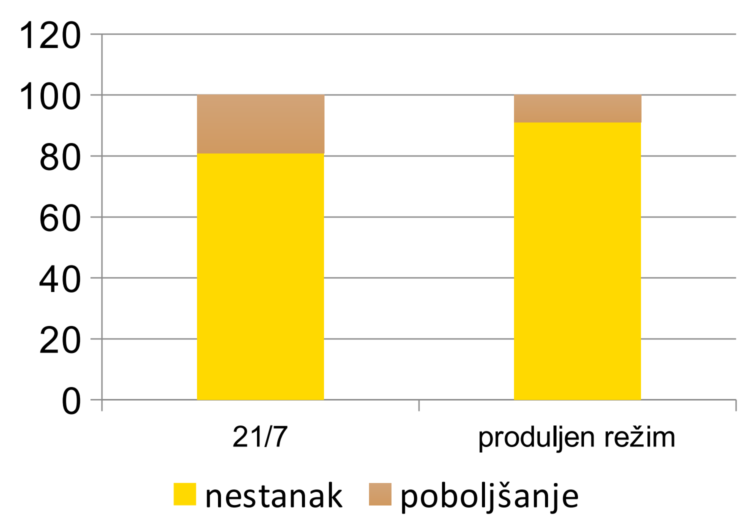
1. Oralni hormonski kontraceptivi nemaju negativan utjecaj na raspoloženje u zdravih žena; poboljšanje kod žena s moliminom
2. Kod žena s PMS/PMD najbolji izbor čine se monofazični preparati s CMA i DRSP, te produljeni režimi

Da: "Efficacy of the low-dose combined oral contraceptive chlormadinone acetate/ethinylestradiol: physical and emotional benefits"

Marie-Luise S. Heskamp, Georg A.K. Schramm

Medical Department, Grünenthal GmbH, 52099 Aachen, Germany

Contraception Received 5 November 2008; revised 19 May 2009; accepted 11 June 2009



Seidman D. IMAJ 2010;12:400-405; Bock K. Gyne 2008;8:219-25.

HORMONSKA KONTRACEPCIJA KOD ŽENA SA SEKSUALNOM DISFUNKCIJOM

UTJECAJ HORMONSKIH KONTRACEPTIVA TEŠKO DEFINIRATI OBZIROM NA SLOŽENOST ŽENSKE SEKSUALNOSTI I SEKSUALNE ŽELJE

DSM-IV-TR Diagnostic Criteria for Sexual Dysfunctions

Sexual Desire Disorders

Hypoactive Sexual Desire Disorder

A. Persistently or recurrently deficient (or absent) sexual fantasies and desire for sexual activity. The judgment of deficiency or absence is made by the clinician, taking into account factors that affect sexual functioning, such as age and the context of the person's life.
B. The disturbance causes marked distress or interpersonal difficulty.
C. The sexual dysfunction is not better accounted for by another Axis I disorder (except another Sexual Dysfunction) and is not due exclusively to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

Sexual Aversion Disorder

A. Persistent or recurrent extreme aversion to, and avoidance of, all (or almost all) genital sexual contact with a sexual partner.
B. The disturbance causes marked distress or interpersonal difficulty.
C. The sexual dysfunction is not better accounted for by another Axis I disorder (except another Sexual Dysfunction).

Sexual Arousal Disorders

Female Sexual Arousal Disorder

A. Persistent or recurrent inability to attain, or to maintain until completion of the sexual activity, an adequate lubrication-swelling response of sexual excitement.
B. The disturbance causes marked distress or interpersonal difficulty.
C. The sexual dysfunction is not better accounted for by another Axis I disorder (except another Sexual Dysfunction) and is not due exclusively to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

C. The orgasmic dysfunction is not better accounted for by another Axis I disorder (except another Sexual Dysfunction) and is not due exclusively to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

Male Orgasmic Disorder

A. Persistent or recurrent delay in, or absence of, orgasm following a normal sexual excitement phase during sexual activity that the clinician, taking into account the person's age, judges to be adequate in focus, intensity, and duration.
B. The disturbance causes marked distress or interpersonal difficulty.
C. The orgasmic dysfunction is not better accounted for by another Axis I disorder (except another Sexual Dysfunction) and is not due exclusively to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

Premature Ejaculation

A. Persistent or recurrent ejaculation with minimal sexual stimulation before, on, or shortly after penetration and before the person wishes it. The clinician must take into account factors that affect duration of the excitement phase, such as age, novelty of the sexual partner or situation, and recent frequency of sexual activity.
B. The disturbance causes marked distress or interpersonal difficulty.
C. The premature ejaculation is not due exclusively to the direct effects of a substance (e.g., withdrawal from opioids).

Sexual Pain Disorders

Dyspareunia

A. Recurrent or persistent genital pain associated with sexual intercourse in either a male or a female.

capacity is less than would be reasonable for her age, sexual ex-

Statistical Manual of Mental Disorders, Fourth Edition, Text Revision.

POSTOJI PERCEPCIJA DA KONTRACEPTIVI NEGATIVNO DJELUJU NA LIBIDO

MOGUĆE OBJAŠNJENJE SMANJENJA SEKSUALNE ŽELJE UZ KORIŠTENJE OHK

Ultranisko dozirani HK - slabije lučenje žlijezda rodnice – dispareunija

EE povisuje SHBG - manje slobodnih androgena – niži libido </

Antiandrogeni gestageni - niži androgeni – niži libido ?

UTJECAJ HORMONSKE KONTRACEPCIJE NA SEKSUALNU ŽELJU

The European Journal of Contraception and Reproductive Health Care, 2013; 18: 27–43

The influence of combined oral contraceptives on female sexual desire: A systematic review

Zlatko Pastor*†, Katerina Holla† and Roman Chmel*

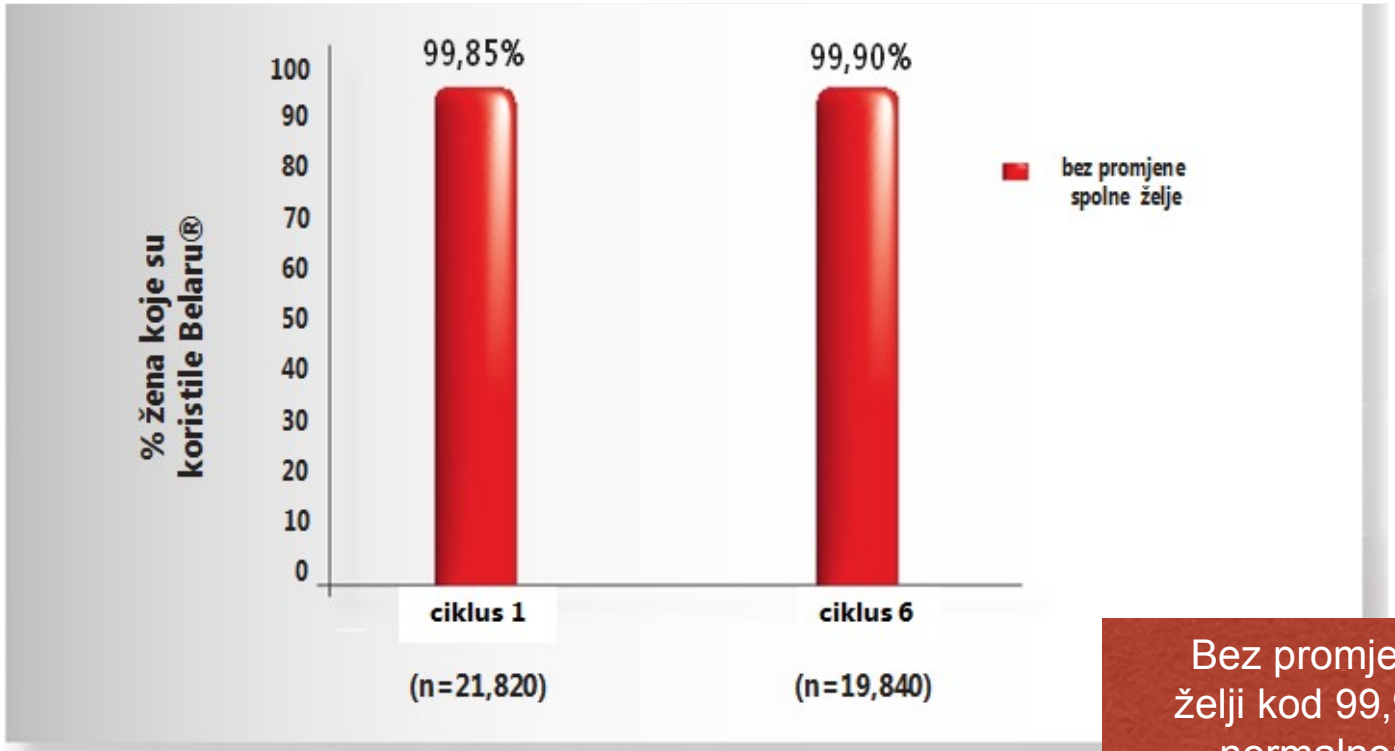
*Obstetrics and Gynaecology Department, 2nd Medical Faculty, Teaching Hospital Motol, Charles University, Prague, Czech Republic, and †Institute of Sexology, 1st Medical Faculty, Charles University, Prague, Czech Republic

Relatively lower EE dose (15–20 µg)	*Libido Decrease*	*Libido Increase*	*Libido No change*	*Total no. of COC users in lower EE dose group*
Number of COC users	140	383	1,689	2,212
Change in libido (%)	6.3	17.3	76.4	100.0
Relatively higher EE dose (25–35 µg)	*Libido Decrease*	*Libido Increase*	*Libido No change*	*Total no. of COC users in higher EE dose group*
Number of COC users	22	179	2,277	2,478
Change in libido (%)	0.9	7.2	91.9	100.0
Number of COC users per EE dose	*Libido decrease*	*Libido increase*	*Libido no change*	
15 µg	140	0	0	
20 µg	0	383	1,689	
25 µg	0	0	54	
30 µg	22	179	2,168	
35 µg	0	0	55	

Androgeni nisu jedini, a vjerojatno čak ni najvažniji prediktori seksualne želje

Pastor Z. J Sex Med 2013;10:3069–3079

Utjecaj EE/CMA na sexualnu želju (libido)



Bez promjena u seksualnoj želji kod 99,9 % pacijentica s normalnom seksualnom funkcijom
(N≈20 000)

Schramm G, Steffens D.. Clin Drug Invest. 2002

POBOLJŠANJE SEXUALNE FUNKCIJE KOD PACIJENTICA S HIPERANDROGENIZMOM

Sniženje ukupnog, slobodnog T, androstendiona, DHEAS i povišenje SHBG

Povišenje SF-36 score u odnosu na bazalne vrijednosti
Povišenje frekvencije seksualnih odnosa, orgazma i mastrubacije

GEDEON RICHTER
THE JOURNAL OF Sexual Medicine

Quality of Sexual Life in Hyperandrogenic Women Treated with an Oral Contraceptive Containing Chlormadinone Acetate

Salvatore Caruso, MD,* Salvatore Rugolo, MD,† Carmela Agnello, MD,* Mattea Romano, MD,* and Antonio Cianci, MD*

*Research Group for Sexology, Department of Microbiological Science and Gynaecological Science, University of Catania, Catania, Italy; †Ultrasound Service, Department of Microbiological Science and Gynaecological Science, University of Catania, Catania, Italy

DOI: 10.1111/j.1743-6109.2009.01529.x

ABSTRACT

Introduction. Hyperandrogenism produces change in quality of life of women.
Aim. To prespectively determine the changes of the sexual behaviour of hyperandrogenic women using an oral contraceptive containing 30 µg ethinylestradiol and 2 mg chlormadinone acetate (EE/CMA).
Methods. Seventy-two volunteer women (age range, 18–32 years), with moderate to severe hirsutim and acne were treated with EE/CMA for 9 cycles.
Main Outcomes Measure(s). To assess hirsutism, the Ferriman-Gallwey (F-G) scoring system was used. Serum FSH, LH, estradiol, total and free testosterone, DHEAS, androstenedione, and SHBG levels were measured at baseline and at the 9th cycle of pill intake. The Short Personal Experience Questionnaire (SPEQ), the Short Form-36 (SF-36), and a visual analog scales questionnaires were used to assess the QoL, at baseline and after 3, 6 and 9 cycles of pill use.
Result(s). A reduction of 65% and 81% in the total mean F-G score was observed after the 6th cycle and the 9th cycle, respectively. The serum Androstenedione, and total and free testosterone levels decreased, and SHBG levels increased after the 9th cycle ($p < 0.05$). The SF-36 score was higher after 6 ($p < 0.05$) 9 cycles ($p < 0.001$) with respect to baseline. Frequency of sexual intercourse and of orgasm by intercourse increased, and the frequency of masturbation decreased during the 6th ($p < 0.05$) and the 9th cycle ($p < 0.001$).
Conclusion(s). The EE/CMA pill has anti-androgenic properties reducing the anti-aesthetic effect of hyperandrogenism and improving female sexual and social self-esteem. **Caruso S, Rugolo S, Agnello C, Romano M, and Cianci A. Quality of sexual life in hyperandrogenic women treated with an oral contraceptive containing chlormadinone acetate. J Sex Med 2009;6:3376–3384.**

Caruso S. J Sex Med 2009

KAKO TO TUMAČITI?

THE JOURNAL OF Sexual Medicine

Quality of Sexual Life in Hyperandrogenic Women Treated with an Oral Contraceptive Containing Chlormadinone Acetate

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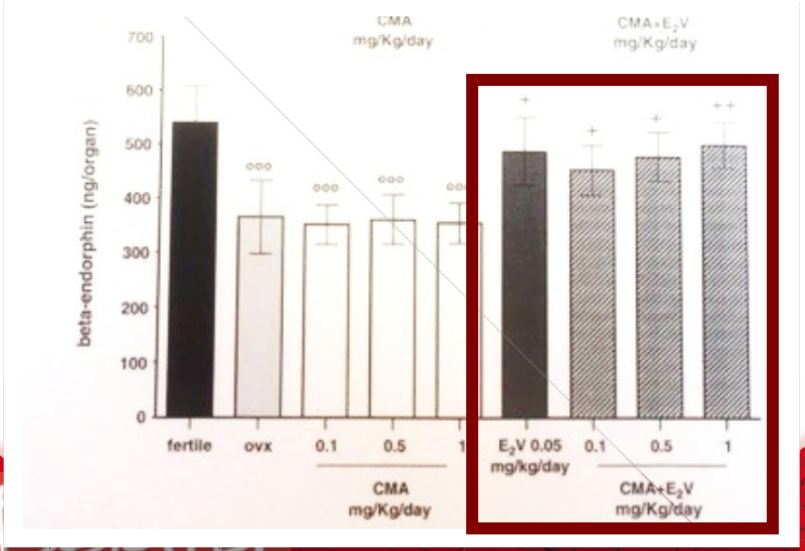
DOI: 10.1111/j.1743-6109.2009.01529.x

Anti estrogeni učinak CMA – manja stimulacija SHBG u odnosu na druge anti-androgene progestine

Anti androgeni učinak dominantno ostvaren na ciljnim tkivima smanjenjem aktivnosti 5 α - reduktaze

Buchard P. Eur J Contracept Reprod Care 2005



B-endorfini imaju ulogu u mehanizmu nastanka sexualnog uzbuđenja i ugode u oba spola

Argiolas A. Neurosci Biobehav Rev, 1999

Bancroft J. J Endocrinol 2005

OHK i SEKSUALNA ŽELJA

- OHK UGLAVNOM NE UZROKUJU PAD LIBIDA
- MOGU IMATI DOBROBITNI UČINAK UTJEČUĆI NA DRUGE PARAMETRE
- ULTRANISKO DOZIRANI KONTRACEPTIVI (<20 mcg) MOGU SMANJITI LUBRIKACIJU
- ANTIANDROGENI PROGESTINI RAZLIČITO UTJEČU NA SPOLNU ŽELJU VJEROJATNO PREKO MODULACIJE NEUROTRANSMITORA U MOZGU

Dismenoreja

Mehanizam nastanka:
povišena sinteza prostaglandina i povišena eskpresija enzima ciklo-oksigenze (COX)

Terapijske opcije:
smanjenje sinteze PG inhibicijom COX – NSAID ili antiproliferativnim učinkom na razini endometrija (OHK)

Hormonska kontracepcija smanjuje dismenoreju u 70-80% pacijentica

U ostalih simptomi perzistiraju uglavnom u HFI intervalu kod režima 21/7 – produljena kontracepcija

Wong CL, Farquhar C, Roberts H, Proctor M. Oral contraceptive pill for primary dysmenorrhoea. Cochrane Database Syst Rev 2009;(4): CD002120.

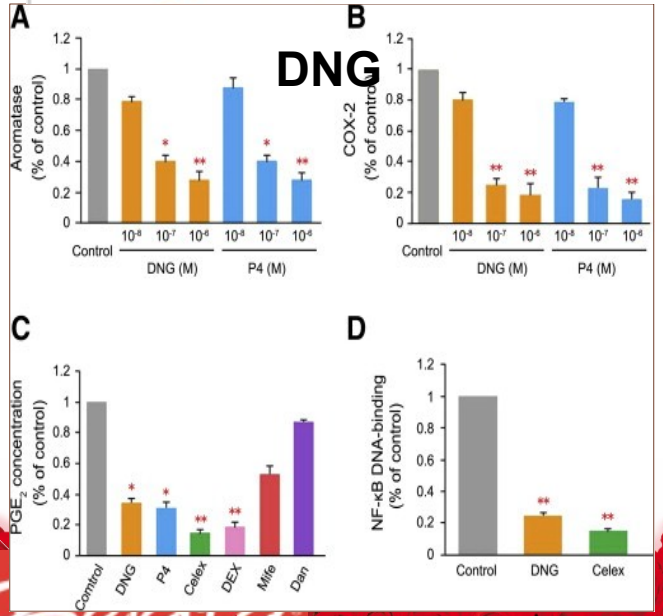
IMAJU LI NEKI PROGESTINI BOLJI UČINAK NA DISMENOREJU???

Fertility and Sterility
Volume 98, Issue 4, October 2012, Pages 1017–1022

Original article

Chlormadinone acetate suppresses prostaglandin biosynthesis in human endometrial explants

Aida Hanjalic-Beck, M.D. · , Wolfgang R. Schäfer, Ph.D., Wolfgang R. Deppert, Ph.D., Lara Fischer, Antonia Stein, Laura Seebacher, M.D., Akou Seli von Gradowski, Johanna Stuckenschneider, Hans P. Zahradnik, M.D.



- Antiproliferativan učinak
- Anti-inflamatorni učinak – modulacija glukokortikoidnih receptora
- Inhibicija aromataze
- Inhibicija COX-2 ekspresije
- Inhibicija PG E(2) u endometralnim stromalnim stanicama

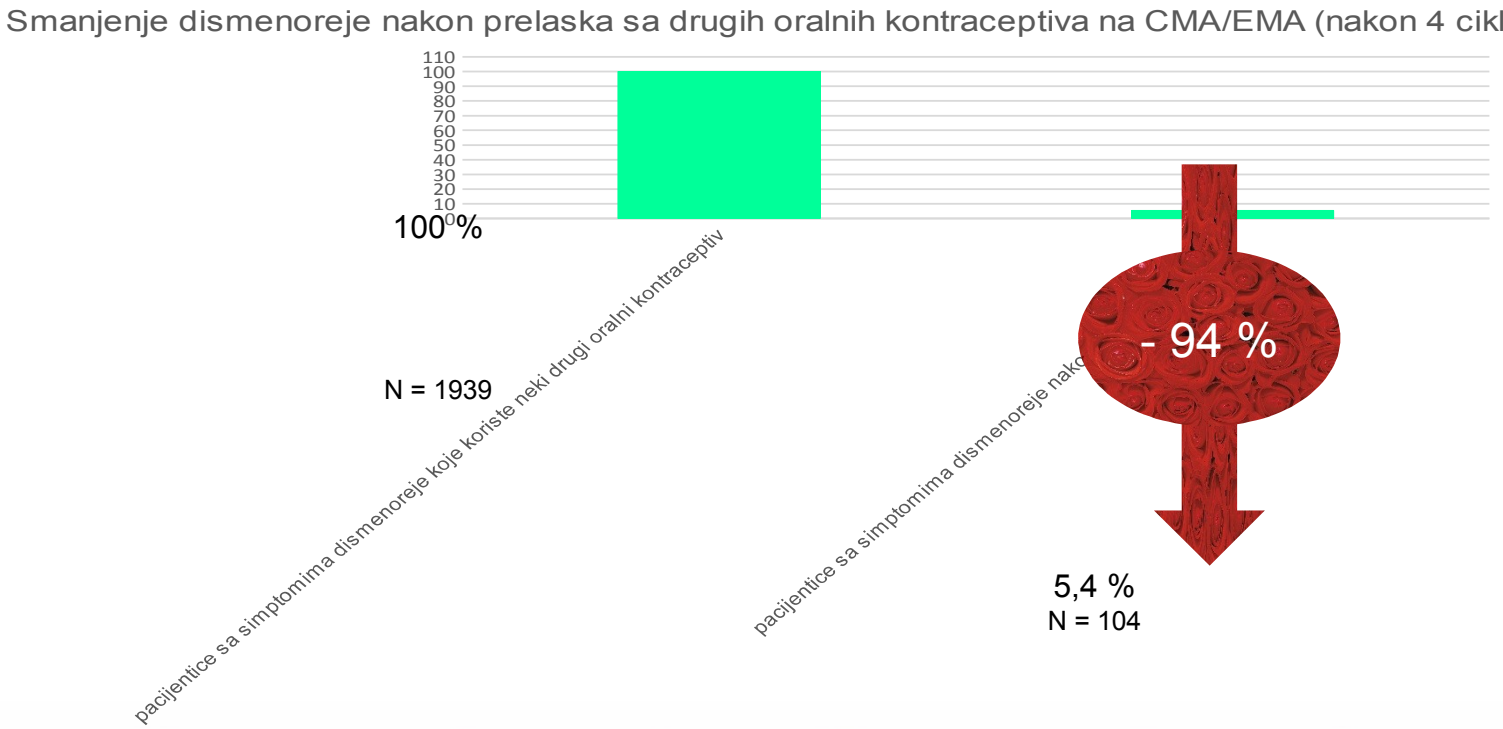
Hanjalic-Beck A. Fertil Steril, 2012

Yamanaka K. Fertil Steril 2012

GEDEON RICHTER

Smanjenje dismenoreje uz EE/CMA

Prelaskom na EE/CMA sa drugih oralnih kontraceptiva dismenoreja je nestala kod 94% žena.



Schramm G, Steffens D. Contraception 2003;67:305–12.

Zahradnik HP. BelfoEur J Contracept Reprod Health Care 2005;10(Suppl 1):12–8.

Anthuber S,. Clin Drug Investig 2010;30:211–20.

Zahradnik HP.. Contraception 2010;81:185–96.

Belara simply feminine


RESPECT
MY
HORMONES


time to talk