

27/05/08



XI Corso di Ginecologia Endocrinologica

Presidente Onorario:

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S. Lello

Segreteria scientifica:

A. Capozzi

ROMA
12 Novembre 2021

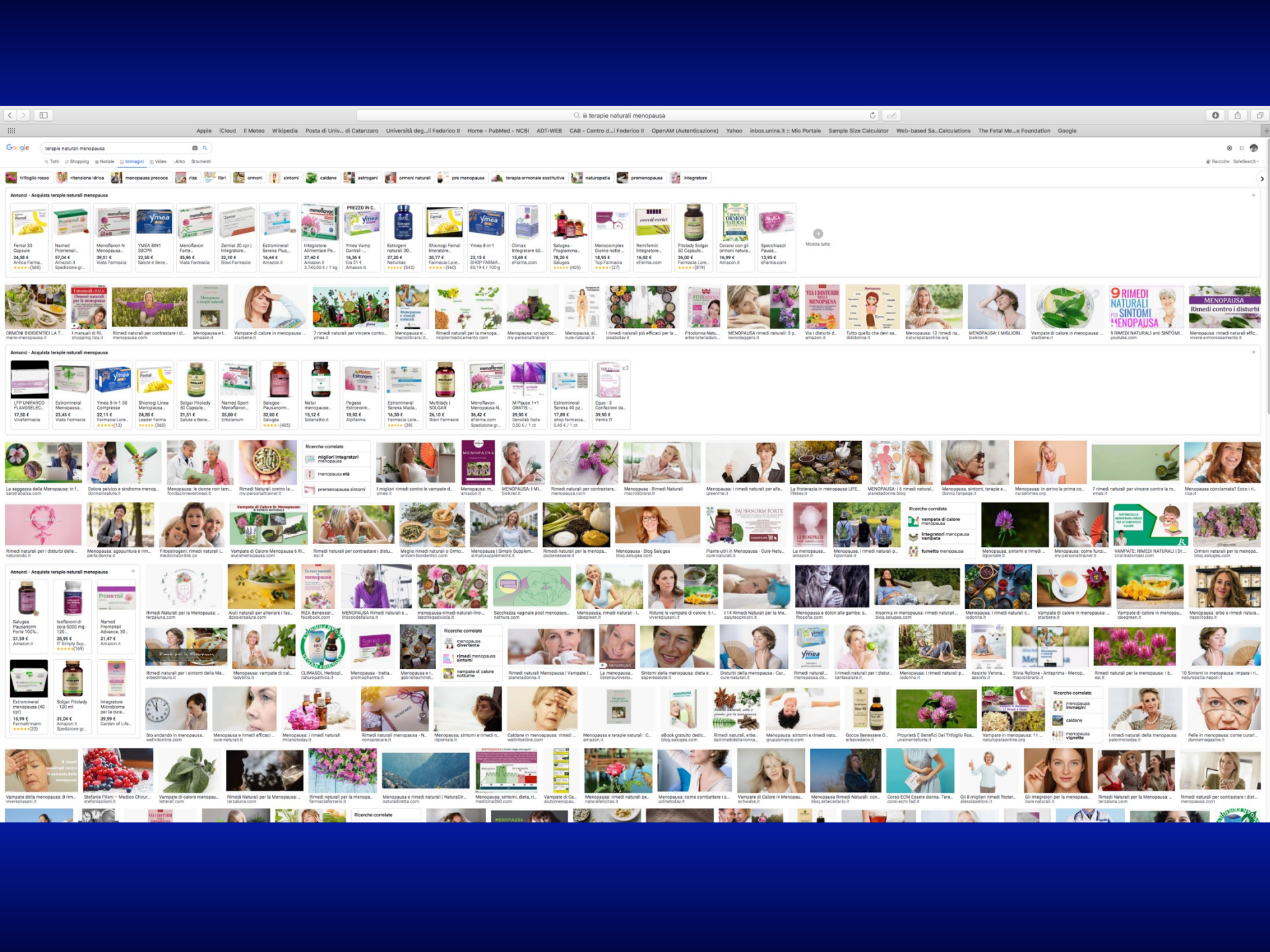
**CENTRO CONGRESSI
AUDITORIUM AURELIA**

Via Aurelia 796

4,2 crediti ECM

Terapie naturali in menopausa

C. Di Carlo



Effects of "natural oestrogen" replacement therapy on menopausal symptoms and blood clotting

JEAN COOPE, JEAN M THOMSON, L POLLER

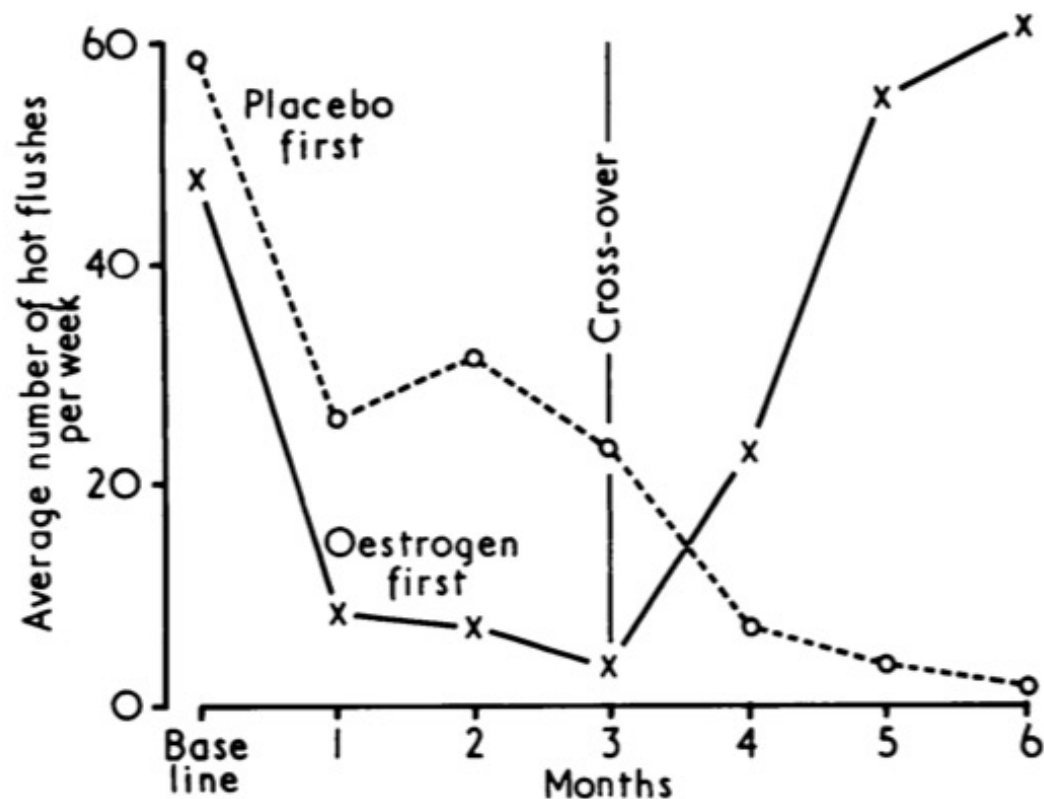


FIG. 2—Average number of hot flushes per week in groups 1 and 2.

Menopausal Symptoms and Treatment-Related Effects of Estrogen and Progestin in the Women's Health Initiative

Vanessa M. Barnabei, MD, PhD, Barbara B. Cochrane, PhD, RN, Aaron K. Aragaki, MS, Ingrid Nygaard, MD, R. Stan Williams, MD, Peter G. McGovern, MD, Ronald L. Young, MD, Ellen C. Wells, MD, Mary Jo O'Sullivan, MD, Bertha Chen, MD, Robert Schenken, MD, and Susan R. Johnson, MD, MS, for the Women's Health Initiative Investigators*

Table 2. Relief/Improvement of Symptoms at Year 1 Among Women Symptomatic at Baseline in the WHI Estrogen Plus Progestin Trial by Treatment Assignment to Estrogen Plus Progestin or Placebo

Symptom	No. of Symptomatic Women* at Baseline (% Relieved at Year 1 [†])				Odds Ratio	95% CI	P
	E + P		Placebo				
Hot flushes	735	(85.7)	645	(57.7)	4.40	3.40–5.71	< .001
Night sweats	711	(77.6)	643	(57.4)	2.58	2.04–3.26	< .001
Breast tenderness	118	(58.5)	115	(72.2)	0.54	0.31–0.94	.03
Vaginal or genital irritation or itching	262	(61.8)	224	(64.7)	0.88	0.61–1.28	.51
Vaginal or genital dryness	711	(74.1)	606	(54.6)	2.40	1.90–3.02	< .001
Vaginal or genital discharge	72	(81.9)	67	(79.1)	1.20	0.52–2.78	.67
Headaches or migraines	727	(52.0)	654	(55.4)	0.87	0.71–1.08	.21
Joint pain or stiffness	1741	(47.1)	1639	(38.4)	1.43	1.24–1.64	< .001
General aches or pains	1623	(49.3)	1470	(43.8)	1.25	1.08–1.44	.002
Lower back pain	1359	(44.4)	1322	(42.3)	1.09	0.94–1.27	.26
Neck pain	916	(52.0)	847	(49.5)	1.11	0.92–1.33	.30
Bloating or gas	1046	(53.4)	1048	(52.5)	1.04	0.87–1.23	.69
Swelling of hands or feet	427	(60.9)	444	(63.5)	0.89	0.68–1.18	.42
Mood swings	447	(63.1)	412	(63.4)	0.99	0.75–1.31	.94
Difficulty concentrating	313	(59.7)	297	(58.6)	1.05	0.76–1.45	.77

E+P, estrogen plus progestin; CI, confidence interval.

* Reporting symptom severity as moderate or severe.

† Reporting symptom severity as mild or did not occur.

Female sexual function improved with ospemifene in postmenopausal women with vulvar and vaginal atrophy: results of a randomized, placebo-controlled trial

G. Constantine, S. Graham*, D. J. Portman†, R. C. Rosen‡ and S. A. Kingsberg**

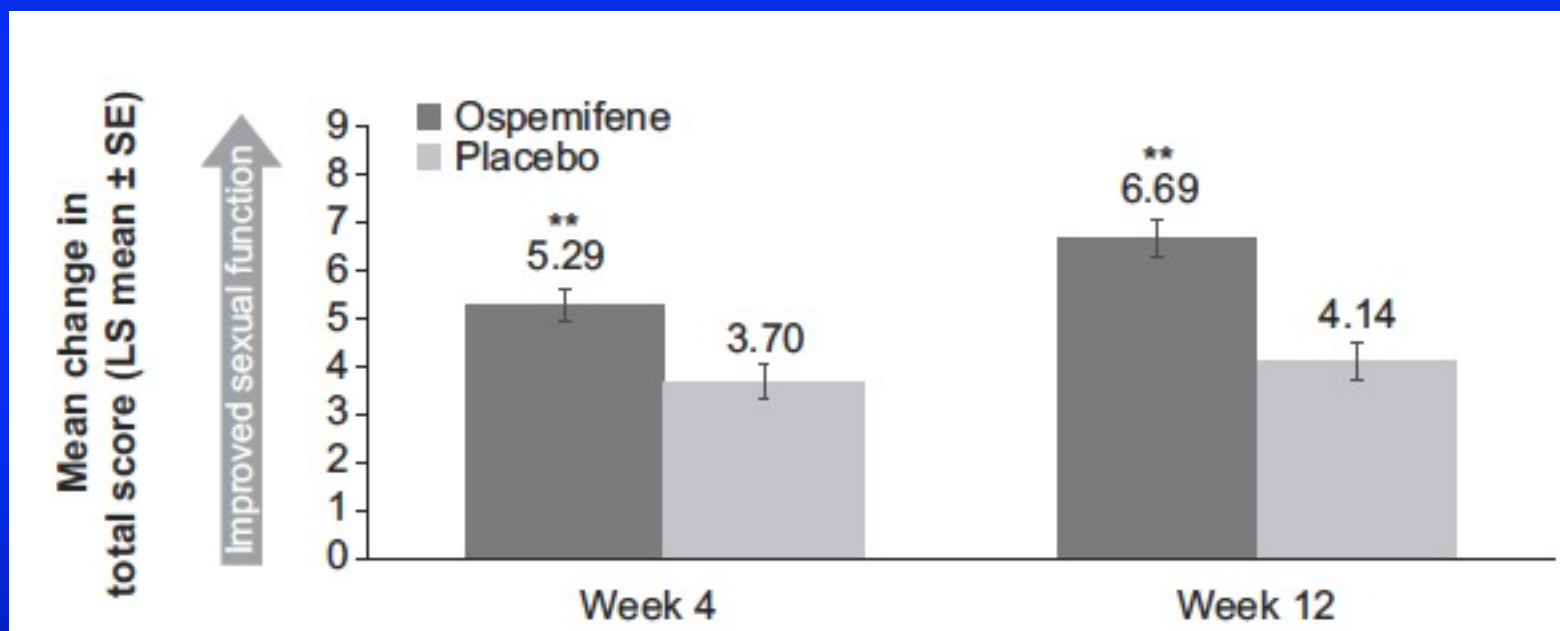


Figure 1 Change from baseline to Weeks 4 and 12 (last observation carried forward) in the Female Sexual Function Index (FSFI) total score in the intent-to-treat (ITT) population. **, $p < 0.001$ compared with placebo.

Cos'è un farmaco

Tutti noi almeno una volta abbiamo avuto o avremo a che fare con i farmaci. Ma sappiamo realmente cosa sono, quali “ingredienti” li compongono e, infine, come si differenziano fra loro?

Un **farmaco** (o **medicinale**) è, infatti, una sostanza o un'associazione di sostanze impiegata per curare o prevenire le malattie. E' composto da un elemento, il principio attivo, da cui dipende l'azione curativa vera e propria, e da uno o più “materiali” privi di ogni capacità terapeutica chiamati **eccipienti** che possono avere la funzione di proteggere il principio attivo da altre sostanze chimiche, facilitarne l'assorbimento da parte dell'organismo, oppure mascherare eventuali odori o sapori sgradevoli del farmaco stesso.

La registrazione dei farmaci

Il processo di registrazione dei farmaci è garantito dall'AIFA secondo le procedure previste dalla normativa europea:

1. [procedura nazionale](#)
2. [procedure comunitarie](#)

Attraverso queste procedure, l'Agenzia con adeguati supporti informatici che assicurano tracciabilità, trasparenza e tempestività a tutto l'iter di registrazione garantisce:

- unitarietà all'assistenza farmaceutica nel territorio nazionale
- accesso ai farmaci innovativi ed ai farmaci per le malattie rare.

Inoltre, l'AIFA, in collaborazione con la [Commissione Tecnico Scientifica](#) (CTS) e con gli esperti del [Istituto Superiore di Sanità](#) (ISS) provvede attraverso valutazioni chimico farmaceutiche, biologiche, farmacotossicologiche e cliniche ad assicurare i requisiti di qualità, sicurezza ed efficacia di tutti i medicinali.



Ministero della Salute



Gli integratori alimentari

Gli integratori alimentari sono definiti dalla normativa di settore (Direttiva 2002/46/CE, attuata con il decreto legislativo 21 maggio 2004, n. 169) come: “prodotti alimentari destinati ad integrare la comune dieta e che costituiscono una fonte concentrata di sostanze nutritive, quali le vitamine e i minerali, o di altre sostanze aventi un effetto nutritivo o fisiologico, in particolare, ma non in via esclusiva, aminoacidi, acidi grassi essenziali, fibre ed estratti di origine vegetale, sia monocomposti che pluricomposti, in forme predosate”.

Gli integratori alimentari sono solitamente presentati in piccole unità di consumo come capsule, compresse, bustine, flaconcini e simili, e possono contribuire al benessere ottimizzando lo stato o favorendo la normalità delle funzioni dell'organismo con l'apporto di nutrienti o altre sostanze ad effetto nutritivo o fisiologico.

L'immissione in commercio è subordinata alla procedura di notifica dell'etichetta al Ministero della Salute. Una volta superata tale procedura, i prodotti sono inclusi in un apposito elenco con uno specifico codice, i cui estremi possono essere riportati nella stessa etichetta.

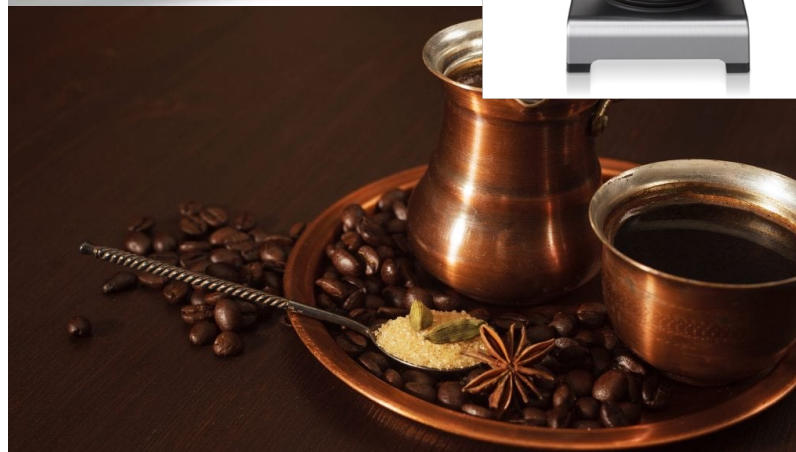
neo- Optalidon



200 mg + 125 mg + 25 mg compresse rivestite
paracetamolo + propifenazone + caffeina

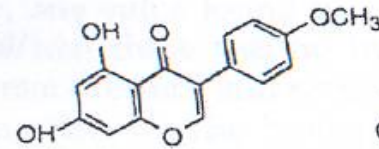
Indicazioni terapeutiche: Trattamento sintomatico del dolore
(esempio mal di testa, dolore ai denti, ai nervi, dolore mestruale) e della



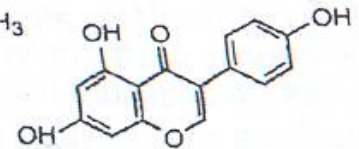


FITOESTROGENI

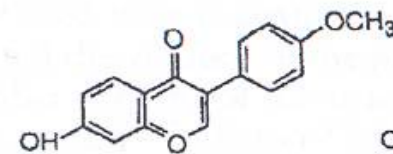
*Sostanze naturali non steroidee
contenute nelle piante con
struttura ed azione simili agli
estrogeni*



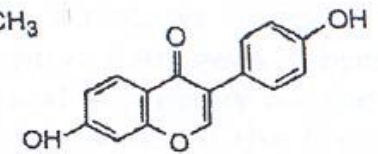
Biochanin A



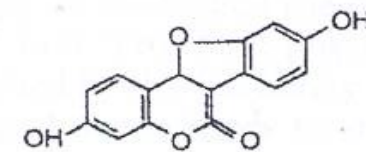
Genistein



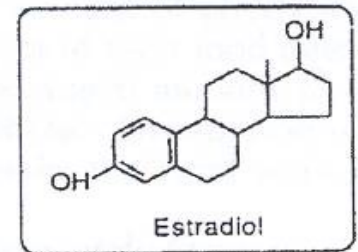
Formononetin



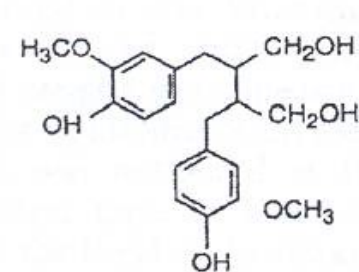
Daidzein



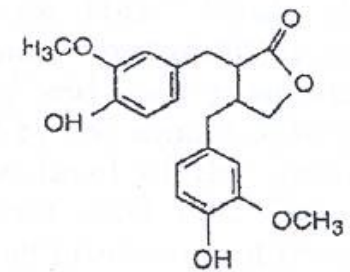
Coumestrol



Estradiol

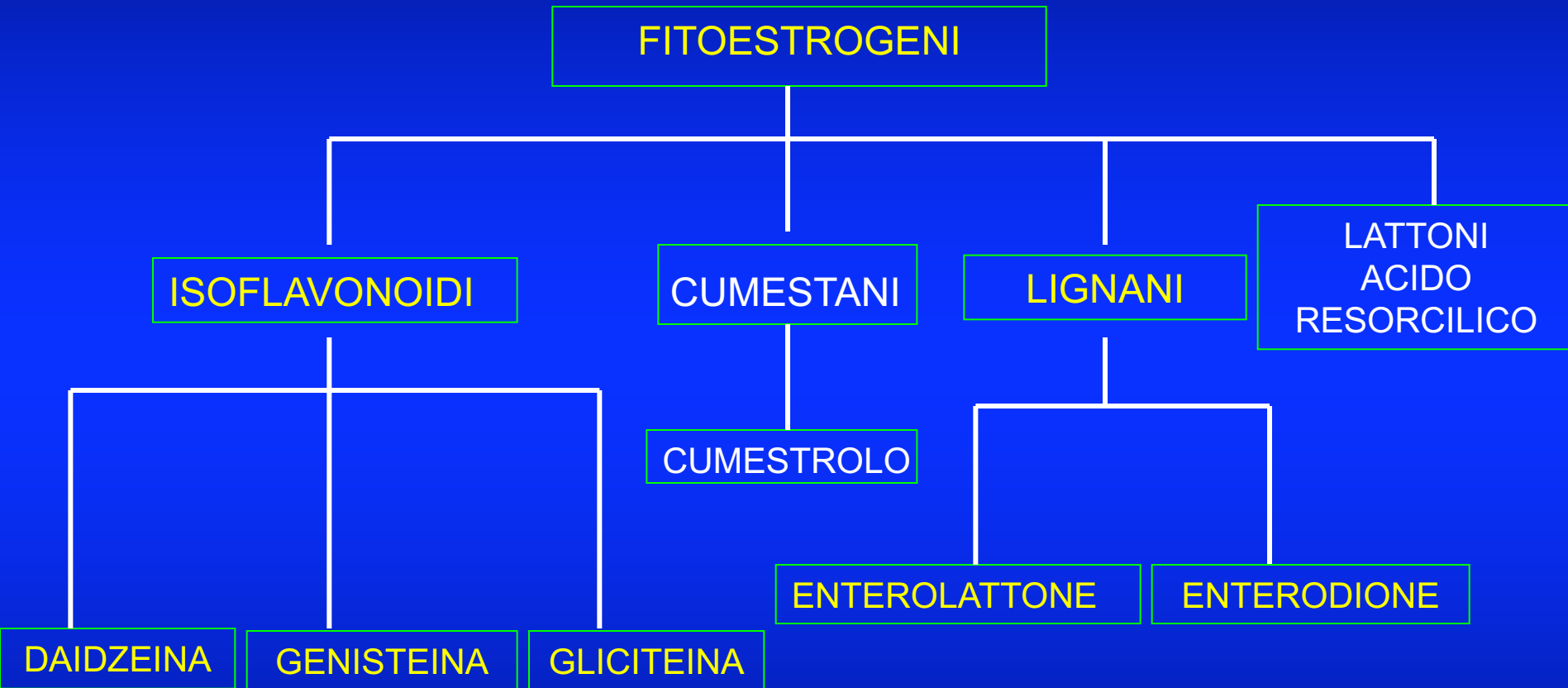


Secoisolariciresinol



Matairesinol

Classificazione dei fitoestrogeni



Definizione

Isoflavoni: i principali isoflavoni sono *la genisteina, la daidzeina e la gliciteina*. Questi elementi sono presenti nei legumi e, in quantità elevate, nei derivati della soia, soprattutto nel fagiolo di soia, i cui semi contengono livelli elevati (mg) di genisteina e di daidzeina e quantità inferiori di gliciteina. Essi sono in gran parte coniugati agli zuccheri e, in misura minore, si trovano negli alimenti come *agliconi* (isoflavoni liberi) che rappresentano i composti biologicamente attivi.



Lignani: sono i costituenti base della parete cellulare dei vegetali. Sono contenuti nei cereali di grano intero (orzo, segale, farina), nei semi, nelle noci, nei legumi e nelle verdure. La principale fonte alimentare dei lignani è costituita dai semi di lino che contengono quantità di lignani straordinariamente superiori (da 100 a 800 volte) a tutte le altre fonti vegetali che fanno parte di una dieta vegetariana. I due precursori glucosidici sono *il seicosolariciresinolo e il matairesinolo* che, in analogia con gli isoflavoni, sono presenti in forma coniugata e che, quindi, vengono trasformati dalla flora intestinale, in *agliconi* (composti biologicamente attivi).



Classi di fitoestrogeni ed alimenti che li contengono

Isoflavoni

- Genisteina
- Daidzeina
- Biochanina-A
- Formononetina
- Gliciteina
- Equolo
- Prunectina, Apigenina, Anetolo, Esperidina
- Soia
- Lenticchie
- Ceci
- Fagioli

Lignani

- Machilina-A
- Enterodiolo
- Enterolactone
- Arctigenin
- Quercetina
- Lino, Girasole (semi)
- Cereali integrali, grano, riso, segale, avena
- Ciliegie, pere, mele
- Carote, finocchi, aglio, cipolla
- Birra, bourbon

Cumestani

- Cumestrol
- 4'-metossicumestrol
- Trifoglio, medicago sativa, foraggio

Lattoni dell'acido resorcilico

- Zearalenone

(meno potenti e meno diffusi negli alimenti)

Potenza estrogenica relativa dei principali fitoestrogeni (Estradiolo = 100)

- Coumestrol = 0.202
- Genisteina = 0.084
- Equol = 0.061
- Daidzeina = 0.013
- Formononetina = 0.0006

Markiewicz et al., 1993

Metabolismo dei principali fitoestrogeni

Alimenti

Flora intestinale

Plasma

Urine

Isoflavoni



Lignani



SCIENTIFIC OPINION

ADOPTED: 8 September 2015

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doi:10.2903/j.efsa.2015.4246

Risk assessment for peri- and post-menopausal women taking food supplements containing isolated isoflavones

EFSA Panel on Food Additives and Nutrient Sources added to Food (ANS)

Abstract

The EFSA ANS Panel was asked to deliver a scientific opinion on the possible association between the intake of isoflavones from food supplements and harmful effects on mammary gland, uterus and thyroid in peri- and post-menopausal women. Isoflavones are naturally occurring substances which can be found in, among other sources, soy, red clover and kudzu root. The main isoflavones are genistein, daidzein, glycitein, formononetin, biochanin A and puerarin. Their chemical structures are related to 17 β -oestradiol and they possess oestrogenic properties. Furthermore, isoflavones may interact with the synthesis of thyroid hormone. Food supplements targeted at peri- and post-menopausal women typically provide a daily dose of isoflavones in the range of 35–150 mg/day. A systematic review was performed to investigate whether an association could be found between intake of isoflavones from food supplements and adverse effects on the three target organs in peri- and post-menopausal women. The human data did not support the hypothesis of an increased risk of breast cancer from observational studies nor of an effect on mammographic density nor on proliferation marker Ki-67 expression in interventional studies. No effect was found on endometrial thickness and histopathological changes in the uterus up to 30 months of supplementation with 150 mg/day of soy isoflavones. After 60 months some non-malignant histopathological changes were reported. Thyroid hormones levels were not changed following intake of isoflavones from food supplements. The background exposure from the diet in the general European population was estimated to be lower than 1 mg/day, whereas in consumers of soy-based foods it could be higher. The Panel concluded that it was not possible to derive a single health-based guidance value for the different preparations in post-menopausal women. However the doses used in the intervention studies and their duration could serve as guidance for the intake of food supplements.

Table 3: Maximum limits set by EU national authorities with respect to the use of isoflavones in food supplements

Country	Responsible authority, year	Maximum limit	Additional warning
France	Ministry of the Economy and Finance arrêté plante, 2014 ⁵	1 mg/kg bw/day of isoflavone (as aglycone), equivalent to 60 mg/day for a 60-kg person ^(a)	Mandatory warning on the labelling: 'not suitable for women who have a personal or family history of breast cancer'
Belgium	Belgian Health and Social affairs Ministry, 2012 ⁶	40 mg/day isoflavones (expressed as glycosides of the main component) ^(b)	–
Italy	Italian Ministry of Health, 2012 ⁷	80 mg/day total isoflavones ^(c)	–

(a): This limit applies to *Glycine max.* (L.) Merr., *Trifolium pratense* L. and *Pueraria montana* var. *lobata* (Willd.) Sanjappa & Pradeep.

(b): This limit applies to isoflavones from *Glycine Max* (L.) Merr. (seed, germ), *Pueraria lobata* (Willd.) Ohwi (root, leaves, flowers) and *Trifolium pratense* L. (aerial parts).

(c): This limit applies only to isoflavones from *Glycine max* (L.) Merr. (semen, semen germinates).

**Phytoestrogens for menopausal vasomotor symptoms
(Review)**

Lethaby A, Marjoribanks J, Kronenberg F, Roberts H, Eden J, Brown J

Main results

A total of 43 randomised controlled trials (4,364 participants) were included in this review. Very few trials provided data suitable for inclusion in a meta-analysis. Among the five trials that yielded data assessing the daily frequency of hot flushes suitable for pooling, no significant difference overall was noted in the incidence of hot flushes between participants taking Promensil (a red clover extract) and those given placebo (mean difference (MD) -0.93, 95% confidence interval (CI) -1.95 to 0.10, $I^2 = 31\%$). No evidence indicated a difference in percentage reduction in hot flushes in two trials between Promensil and placebo (MD 20.15, 95% CI -12.08 to 52.38, $I^2 = 82\%$). Four trials that were not combined in meta-analyses suggested that extracts with high (> 30 mg/d) levels of genistein consistently reduced the frequency of hot flushes. Individual results from the remaining trials were compared in broad subgroups such as dietary soy, soy extracts and other types of phytoestrogens that could not be combined. Some of these trials found that phytoestrogen treatments alleviated the frequency and severity of hot flushes and night sweats when compared with placebo, but many trials were small and were determined to be at high risk of bias. A strong placebo effect was noted in most trials, with a reduction in frequency ranging from 1% to 59% with placebo. No indication suggested that discrepant results were due to the amount of isoflavone in the active treatment arm, the severity of vasomotor symptoms or trial quality factors. Also, no evidence indicated that these treatments caused oestrogenic stimulation of the endometrium or the vagina or other adverse effects when used for up to two years.

Authors' conclusions

No conclusive evidence shows that phytoestrogen supplements effectively reduce the frequency or severity of hot flushes and night sweats in perimenopausal or postmenopausal women, although benefits derived from concentrates of genistein should be further investigated.



Dietary soy

Of the 13 included studies that used some type of substance containing dietary soy and had efficacy analyses of any kind, seven studies indicated that no significant differences were seen between the soy intervention group and the control group in terms of primary efficacy outcomes. In studies that reported significant findings, interventions included phytoestrogen-enriched diets, soy milk, fruit drinks with isoflavones and soy powders. Only one trial had low risk of bias, and participants varied in the severity of their flushes at baseline. Sensitivity analyses could not explain the variable results. Thus, the findings from these trials must be considered only tentative, as variability and significant bias influencing the findings cannot be excluded.

Overall, no evidence suggested that a diet with high levels of soy phytoestrogens had a positive effect on hot flush frequency or severity.



Soy extracts

Of the 11 trials that compared soy extracts with placebo, nine had some positive results and two were negative. Five of nine studies found significant improvement in hot flush frequency with soy extract, but one found that soy extract was associated with more hot flushes than were seen with placebo. Four of seven studies found that hot flush severity was significantly reduced with soy extract, but most of these studies were at high risk of bias. One other study at high risk of bias found no difference in the effect of soy extract or hormone therapy on hot flush symptoms (as measured by the Kupperman Index).

Given the variability in the interventions, the severity of hot flushes at baseline and the potential for risk of bias, no overall conclusive evidence showed that soy extracts had a positive effect on hot flush frequency or severity.



Red clover extracts

Five studies assessed the effects of Promensil, and four studies assessed the effects of other red clover extracts. Findings were inconclusive and could largely be explained by risk of bias. The two larger studies at low risk of bias found no evidence of benefit with red clover extracts.

Overall, no evidence suggested that red clover extracts had a positive effect on hot flush frequency or severity.



Genistein

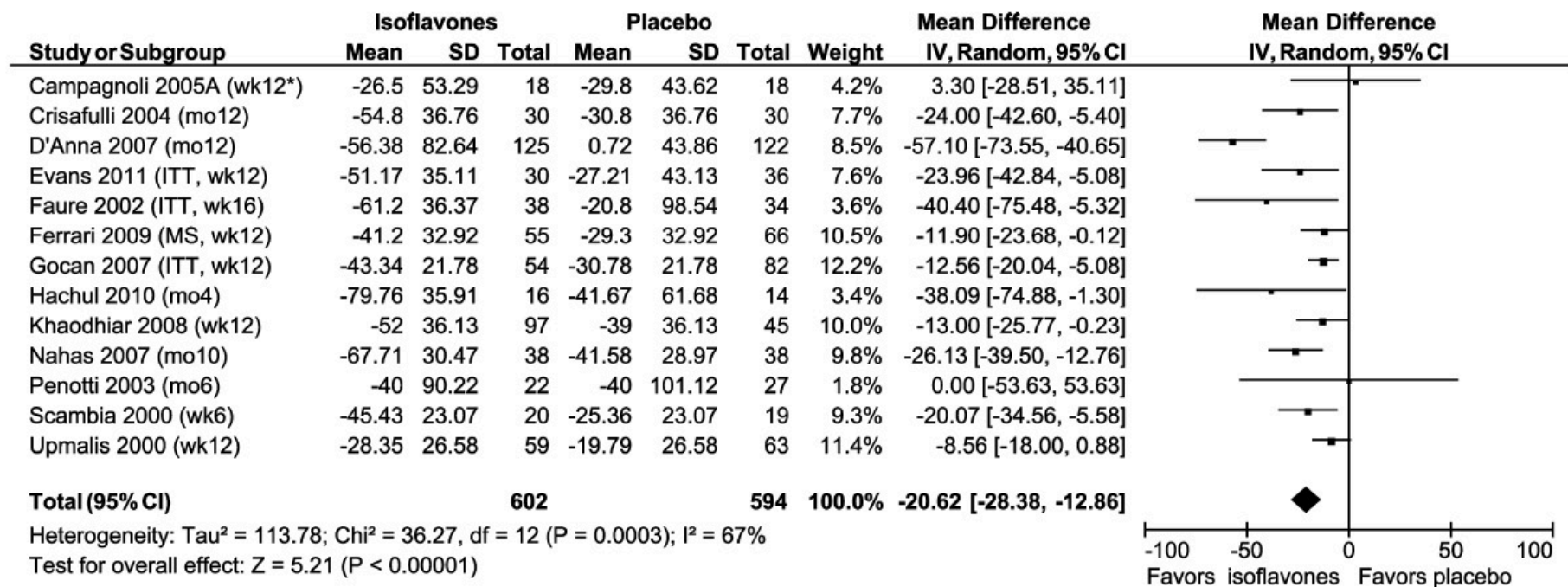
All four studies found consistent benefit for hot flush frequency with doses of genistein ranging from 30 to 60 mg per day in women with moderate to severe hot flushes, although benefits for hot flush severity were more mixed. Although benefits were found with genistein, they were significantly less than those associated with continuous hormone therapy in one study. These positive findings should be considered tentative as, in two of the four studies, effects on hot flushes were secondary outcomes, and in one study, measurements were made in a subgroup from the total study population, which may have introduced bias (Schulz 2005).

Overall, genistein extracts appeared to significantly reduce the numbers of hot flushes experienced by symptomatic postmenopausal women but to a lesser extent than hormone therapy.

Extracted or synthesized soybean isoflavones reduce menopausal hot flash frequency and severity: systematic review and meta-analysis of randomized controlled trials

Kyoko Taku, PhD, MD,¹ Melissa K. Melby, PhD,² Fredi Kronenberg, PhD,³ Mindy S. Kurzer, PhD,⁴ and Mark Messina, PhD⁵

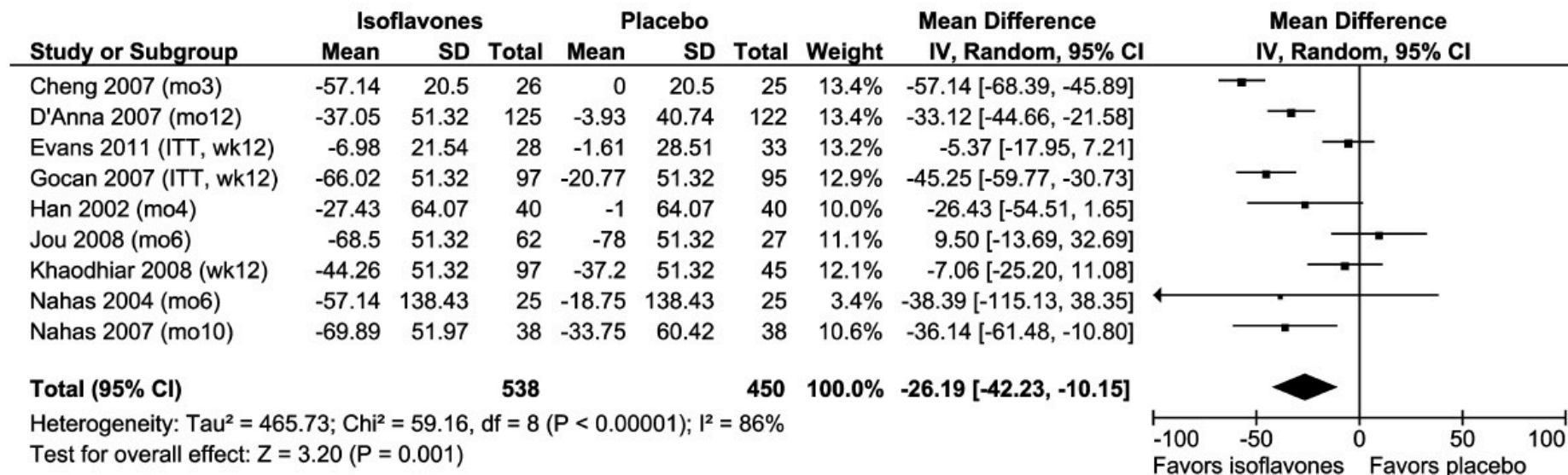
Metanalisi: gli isoflavoni di soia riducono la frequenza delle vampate



Extracted or synthesized soybean isoflavones reduce menopausal hot flash frequency and severity: systematic review and meta-analysis of randomized controlled trials

Kyoko Taku, PhD, MD,¹ Melissa K. Melby, PhD,² Fredi Kronenberg, PhD,³ Mindy S. Kurzer, PhD,⁴ and Mark Messina, PhD⁵

Metanalisi: gli isoflavoni di soia riducono la severità delle vampate



Consensus: soy isoflavones as a first-line approach to the treatment of menopausal vasomotor complaints

Mathias Schmidt, Karin Arjomand-Wölkart, Martin H. Birkhäuser, Andrea R. Genazzani, Doris M. Gruber, J. Huber, Heinz Kölbl, Samo Kreft, Sepp Leodolter, Doris Linsberger, Markus Metka, Tommaso Simoncini & Lucija Vrabic Dezman

Conclusions on isoflavones and menopausal hot flushes

- The efficacy of isoflavones against menopausal hot flushes has been confirmed in independent meta-analyses, and has the evidence grade Ia.
- The effect against hot flush frequency and severity is $\sim 25\%$ superior over placebo, and reaches 57% of the effect of estrogen replacement.
- Reaching the maximum effect takes more time than under treatment with estrogen. This is an important message to give to the patients. On the risk side fewer adverse effects and a high patient compliance can be expected.



Article

Moderate Consumption of Beer (with and without Ethanol) and Menopausal Symptoms: Results from a Parallel Clinical Trial in Postmenopausal Women

Marta Trius-Soler ^{1,2,3} , María Marhuenda-Muñoz ^{1,2,3} , Emily P. Laveriano-Santos ^{1,2} ,
Miriam Martínez-Huélamo ^{1,2}, Gemma Sasot ^{1,2}, Carolina E. Storniolo ^{1,2}, Ramon Estruch ^{3,4} ,
Rosa M. Lamuela-Raventós ^{1,2,3,*} and Anna Tresserra-Rimbau ^{1,2,3,*}

Beer is the main dietary source of isoxanthohumol (IX), which is produced from xanthohumol (XN) during the brewing process [19]. Once ingested, the weakly estrogenic IX can be bioactivated to 8-prenylnaringenin (8-PN), the strongest phytoestrogen identified to date [20,21], by microorganisms inhabiting the gastrointestinal tract [17,22] or converted in the liver in minor amounts [17,23,24]. In a previous intervention study with 36 menopausal

After a run-in period of 15 days, in which subjects were asked not to consume any alcoholic beverage, NAB or hop-related products, participants were allotted to a study group for 6 months. One group consumed 14 g of ethanol a day in the form of AB (330 mL/d) (AB group); another received NAB (660 mL/d) containing a similar amount of non-alcoholic compounds to AB (NAB group), and the third group did not receive any intervention and were instructed to refrain from consuming alcohol, NAB or hop-related products (control group). None of the participants were allowed to consume any other alcoholic beverages during the study.

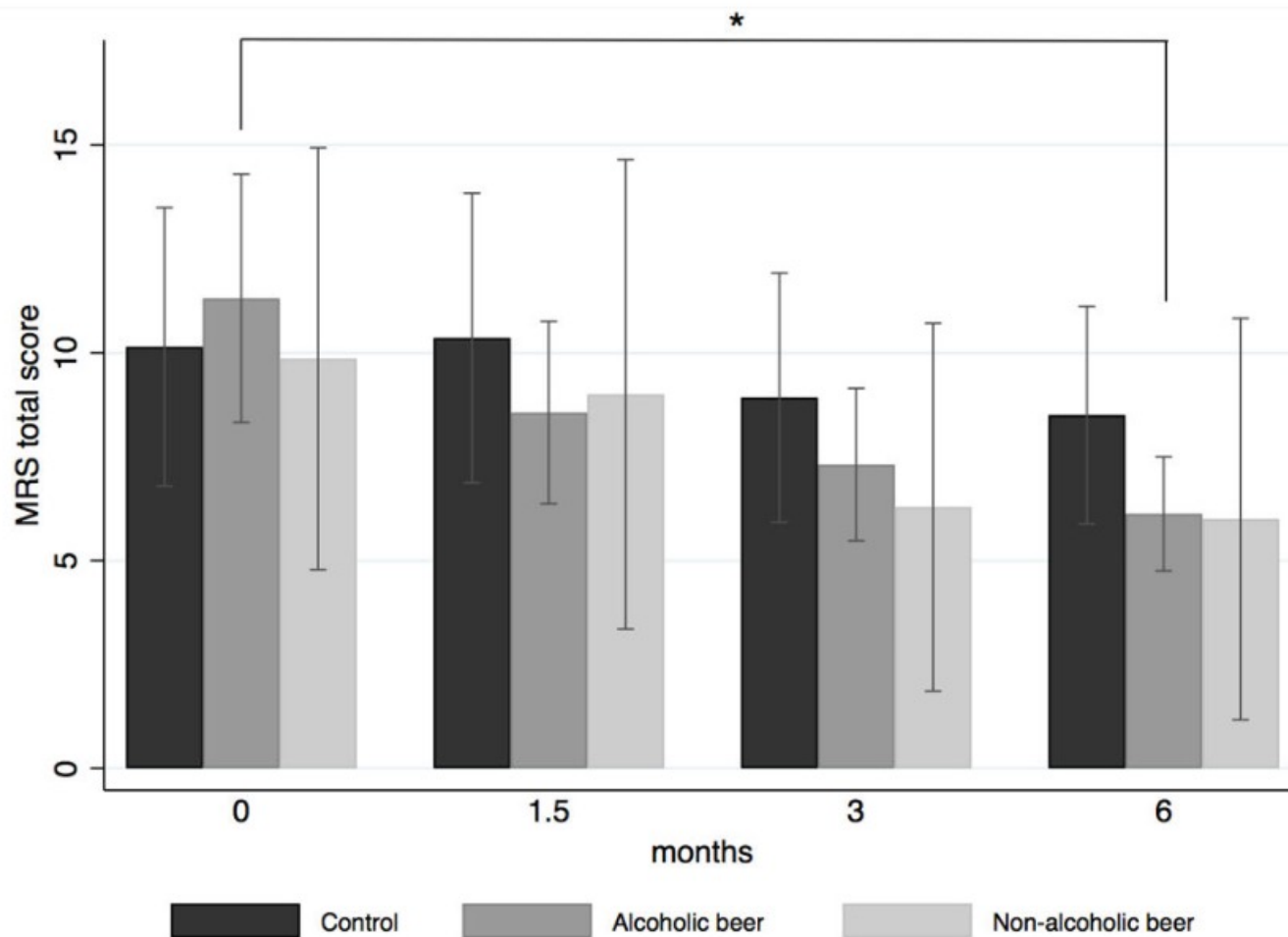


Figure 2. Evolution of total MRS score of the study groups during the intervention. Results are expressed as mean \pm standard deviation. Means with (*) are significantly different. p -value < 0.05 .

Estratto di *Angelica archangelica* L.

Nel XVI sec. veniva coltivata nei monasteri dell'Europa centrale e, appunto dai monaci, per le sue virtù, fu denominata Erba degli angeli o Angelica o Arcangelica, quasi fosse venuta dal regno degli angeli. Secondo l'abate Fournier il nome Arcangelica deriva dalla leggenda che attribuiva all'arcangelo Raffaele l'aver rivelato ad un eremita le proprietà specifiche della pianta contro la peste.



L'Angelica contiene fitoestrogeni e può essere utilizzata in caso di alti o bassi livelli di estrogeni.

E' stato dimostrato che l'Angelica esercita un effetto tonico sull'utero.

Harada M, Suzuki M, and Ozaki Y: Effect of Japanese angelica root and peony root on uterine contraction in the rabbit in situ. J Pharmacol Dynam 7, 304-311, 1984.

Estrogenic Activity of Standardized Extract of *Angelica sinensis*

Clara Circosta*, Rita De Pasquale, Dora R. Palumbo, Stefania Samperi and
 Francesco Occhiuto

Pharmaco-Biological Department, School of Pharmacy, University of Messina, Messina, Italy

Table 2. Effect of ethanol extract of *A. sinensis* on uterine weight in ovariectomized rats

Treatment	Dose	Treatment period (days)	Uterus weight (mg/100 g)
Control (vehicle)	–	7	44.3 ± 0.9
Estradiol benzoate	0.1 µg/rat s.c.	7	187.0 ± 1.5 ^a
Ethanol extract	100 mg/kg os	7	102.0 ± 1.3 ^a
Ethanol extract	300 mg/kg os	7	111.5 ± 1.8 ^a

Mean ± SEM of $n = 6$ /group.

^a $p < 0.05$ versus control.

Morus alba (Gelso bianco)



In traditional Chinese medicine (TCM), leaves, fruits, and bark of *M. alba* have long been used to treat fever, protect liver damage, improve eyesight, strengthen joints, facilitate discharge of urine, and lower blood pressure^[13]. In Korea and Japan, patients with diabetes consume mulberry leaves as an anti-hyperglycemic supplement^[14]. Mulberry leaves are effective against high blood pressure and hangover from alcohol and in lowering blood sugar level related to diabetes^[9]. In East and Southeast Asia, the drinking of mulberry tea is gaining popularity. The tea is rich in γ -aminobutyric acid ($2.7 \text{ mg}\cdot\text{g}^{-1}$ dry weight) which is 10 times higher than that of green tea^[6]. The compound is known to lower blood pressure.

Influence of Mulberry Leaf Extract on the Blood Glucose and Breath Hydrogen Response to Ingestion of 75 g Sucrose by Type 2 Diabetic and Control Subjects

MITCHELL MUDRA, BA¹
NACIDE ERCAN-FANG, MD^{1,2}
LITAO ZHONG, MD, PHD³

JULIE FURNE, BS¹
MICHAEL LEVITT, MD^{1,2}

DIABETES CARE, VOLUME 30, NUMBER 5, MAY 2007

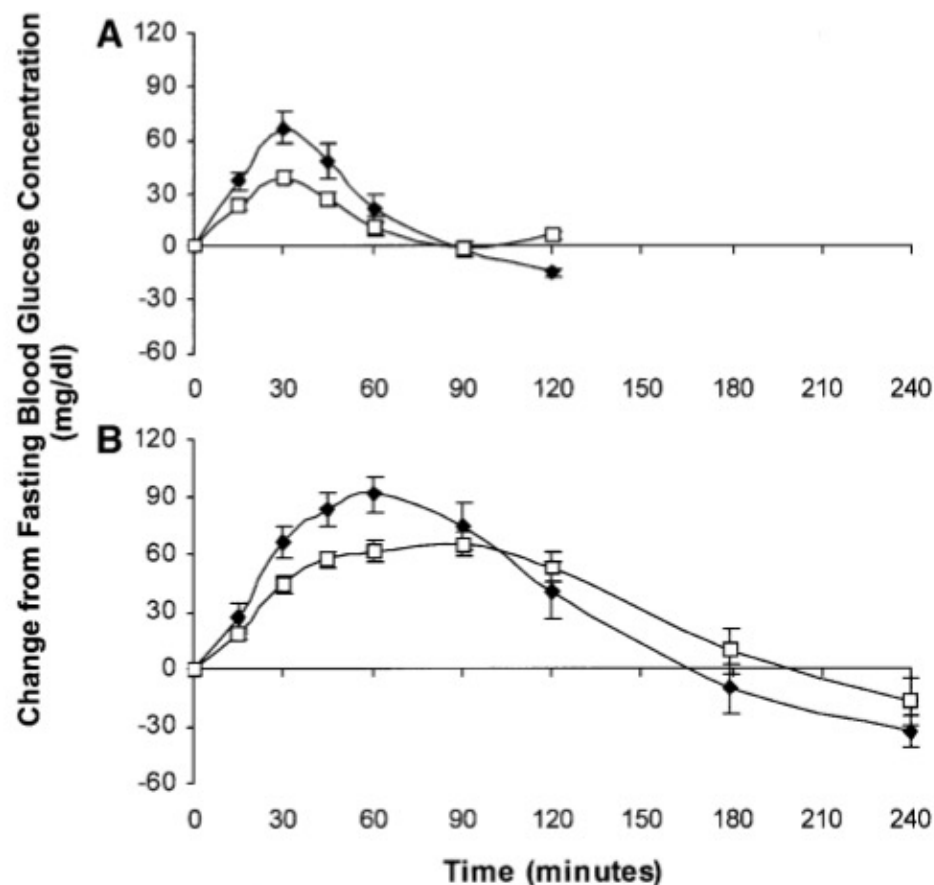
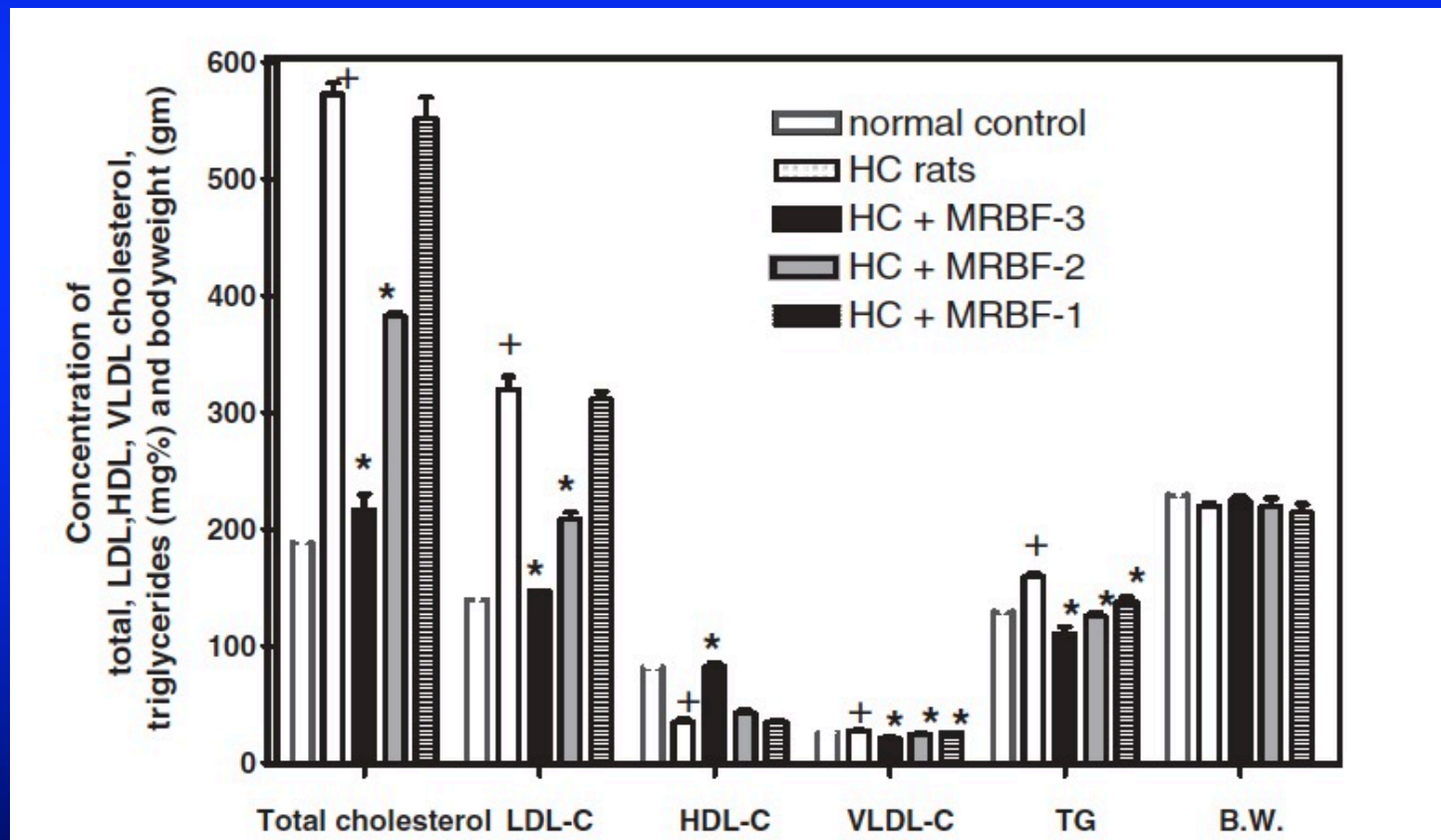


Figure 1—Changes in blood glucose concentration from the fasting concentration of 10 healthy control subjects (A) and 10 type 2 diabetic subjects (B) after ingestion of 75 g sucrose with 1.0 g mulberry leaf extract (□) or placebo (◆). The difference between mulberry and placebo over the first 120 min of the study, determined by ANOVA, was highly significant for control ($P = 0.005$) and diabetic ($P = 0.002$) subjects.

Hypolipidemic and antioxidant effects of *Morus alba* L. (Egyptian mulberry) root bark fractions supplementation in cholesterol-fed rats

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Tre diverse frazioni di estratto da *Morus alba* esercitano azione normalizzante sui livelli di lipidi in ratti iperlipidemici



Effects of a new combination of nutraceuticals on postmenopausal symptoms and metabolic profile: a crossover, randomized, double-blind trial

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Objectives: This study was designed to measure the beneficial effects of a combination of nutraceuticals (NUT; AkP04, Morestril®, Akademy Pharma) containing soy isoflavones (80 mg), dry extract of *Angelica sinensis* (50 mg), dry extract of *Morus alba* leaf (200 mg) and magnesium (56.25 mg) in the relief of somatic, psychological, and urogenital symptoms in postmenopausal patients, using the validated Menopause Rating Scale (MRS) and cardiovascular risk factors.

Materials and methods: A total of 43 symptomatic postmenopausal women (MRS ≥ 20) were enrolled in a crossover trial. After a 2-week run-in period, patients were randomized into two arms. One arm received probiotics plus placebo over 4 weeks, followed by a 4-week treatment with probiotics plus NUT. The second arm received probiotics plus NUT for 4 weeks, followed by a 4-week treatment with probiotics plus placebo.

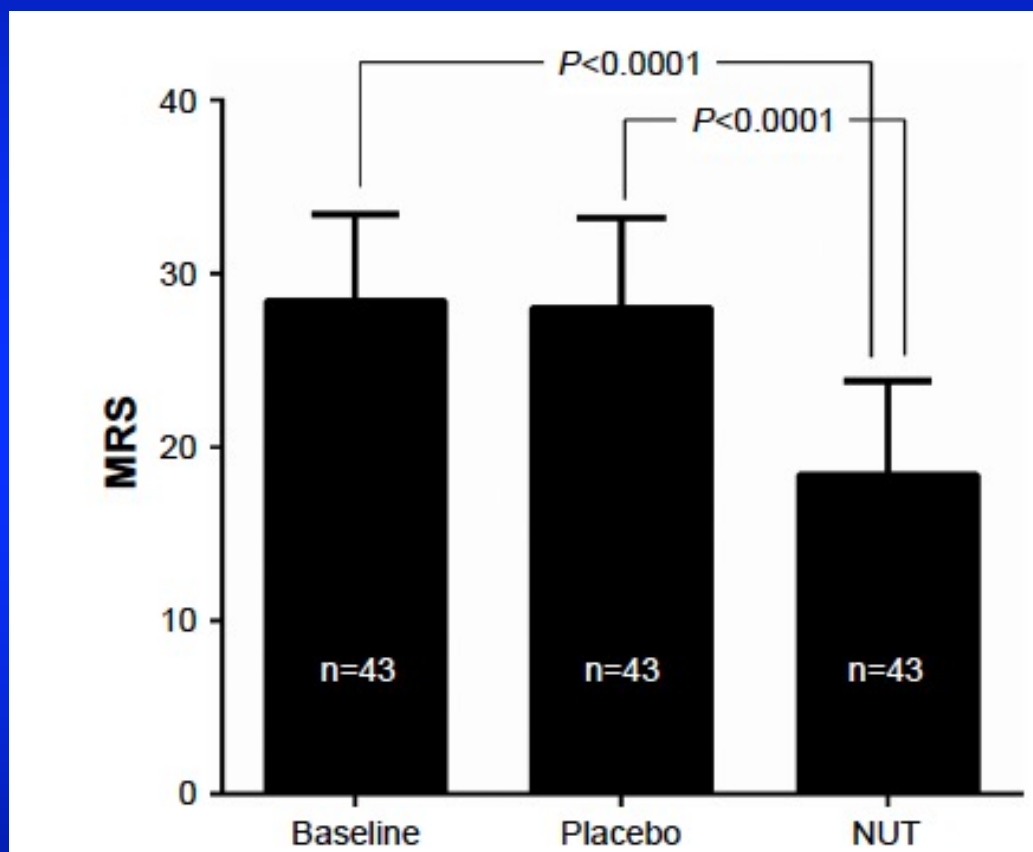
Results: After the NUT period, participants showed a significant reduction in MRS score (18.4 ± 5.4) in comparison to baseline (28.4 ± 5) and the placebo period (28 ± 5.2) ($P < 0.0001$ for both comparisons). Furthermore, at the end of the active-treatment period, we observed a significant reduction in triglycerides, total and low-density lipoprotein cholesterol plasma levels and an increase in high-density lipoprotein cholesterol plasma concentration versus baseline and versus placebo (all $P < 0.04$). Moreover, during the NUT period, we detected a significant reduction in diastolic blood pressure in comparison to baseline, but not in comparison to the placebo period.

Conclusion: This NUT combination was effective for the relief of menopause symptoms in postmenopausal patients and improved their cardiovascular risk profile.

Keywords: menopause, hot flushes, lipid profile, cholesterol, phytoestrogens, soy isoflavones, cardiovascular risk

Risultati

Sintomi Climaterici



Riduzione significativa dei sintomi Climaterici

Risultati

Effetto sui Lipidi

Table 4 Blood pressure, lipid, and glucose profile at baseline and at the end of the two study periods

	Baseline (n=43)	Placebo (n=43)	NUT combination	P< (placebo vs baseline)	P< (NUT vs baseline)	P< (NUT vs placebo)
SBP (mmHg)	126.2±15.2	128.4±13	126.4±10.3	NS	NS	NS
DBP (mmHg)	77.5±6.3	76.3±6	74.6±6.6	NS	0.026	NS
Waist circumference (cm)	88.7±13.8	88.9±13.8	88.3±13.5	NS	NS	NS
Total cholesterol (mmol/L)	5.7±0.83	5.6±0.76	4.9±0.71	NS	0.0001	0.0001
HDL cholesterol (mmol/L)	1.5±0.35	1.5±0.33	1.6±0.37	NS	0.0001	0.01
LDL cholesterol (mmol/L)	3.5±0.76	3.5±0.77	2.8±0.69	NS	0.0001	0.0001
Triglycerides (mmol/L)	1.4±0.65	1.3±0.57	1.2±0.43	NS	0.016	0.036
Fructosamine (μmol/L)	222.0±36.6	219.6±31.5	210.9±34.4	NS	NS	NS

Note: Each value represents mean ± SD.

Abbreviations: NUT, nutraceuticals; SBP, systolic blood pressure; DBP, diastolic blood pressure; HDL, high-density lipoprotein; LDL, low-density lipoprotein; NS, not significant; SD, standard deviation.

Miglioramento significativo del profilo lipidico

Cimicifuga racemosa (Actaea racemosa)



Cimicifuga racemosa
Mo Fayyaz

A systematic review of non-hormonal treatments of vasomotor symptoms in climacteric and cancer patients

Juergen Drewe^{1*}, Kathleen A Bucher² and Catherine Zahner¹

Mechanism of action of CR

CR's mechanism of action on climacteric symptoms is not yet clear. Selective modulation of oestrogen receptors, serotonergic, antioxidant and anti-inflammatory effects have been proposed (Ruhlen et al. 2008). CR binds to the serotonin receptors, 5-HT_{1A}, 5-HT_{1D} and 5-HT₇ (Burdette et al. 2003; Powell et al. 2008). From these, 5-HT_{1A} and 5-HT₇ are also expressed in the hypothalamus and are involved in thermoregulation (Burdette et al. 2003; Hedlund et al. 2003; Naumenko et al. 2011).

Black cohosh (*Cimicifuga* spp.) for menopausal symptoms (Review)

Leach MJ, Moore V

Authors' conclusions

There is currently insufficient evidence to support the use of black cohosh for menopausal symptoms. However, there is adequate justification for conducting further studies in this area. The uncertain quality of identified trials highlights the need for improved reporting of study methods, particularly with regards to allocation concealment and the handling of incomplete outcome data. The effect of black cohosh on other important outcomes, such as health-related quality of life, sexuality, bone health, night sweats and cost-effectiveness also warrants further investigation.



Interventions

All studies used oral monopreparations of *Cimicifuga racemosa* as the active intervention; six studies used an ethanolic extract (Amsterdam 2009; Frei-Kleiner 2005; Geller 2009; Kronenberg 2009; Newton 2006; Wuttke 2003), six used an isopropanolic extract (Bai 2007; Jacobson 2001; Lehmann-Willenbrock 1988; Nappi 2005; Osmer 2005; Stoll 1987) and in four studies (Bebenek 2010; Carlisle 2008; Oktem 2007; Pockaj 2006), the solvent was not defined. Seven studies specifically identified the

Differentiated Evaluation of Extract-Specific Evidence on *Cimicifuga racemosa*'s Efficacy and Safety for Climacteric Complaints

A.-M. Beer¹ and A. Neff²

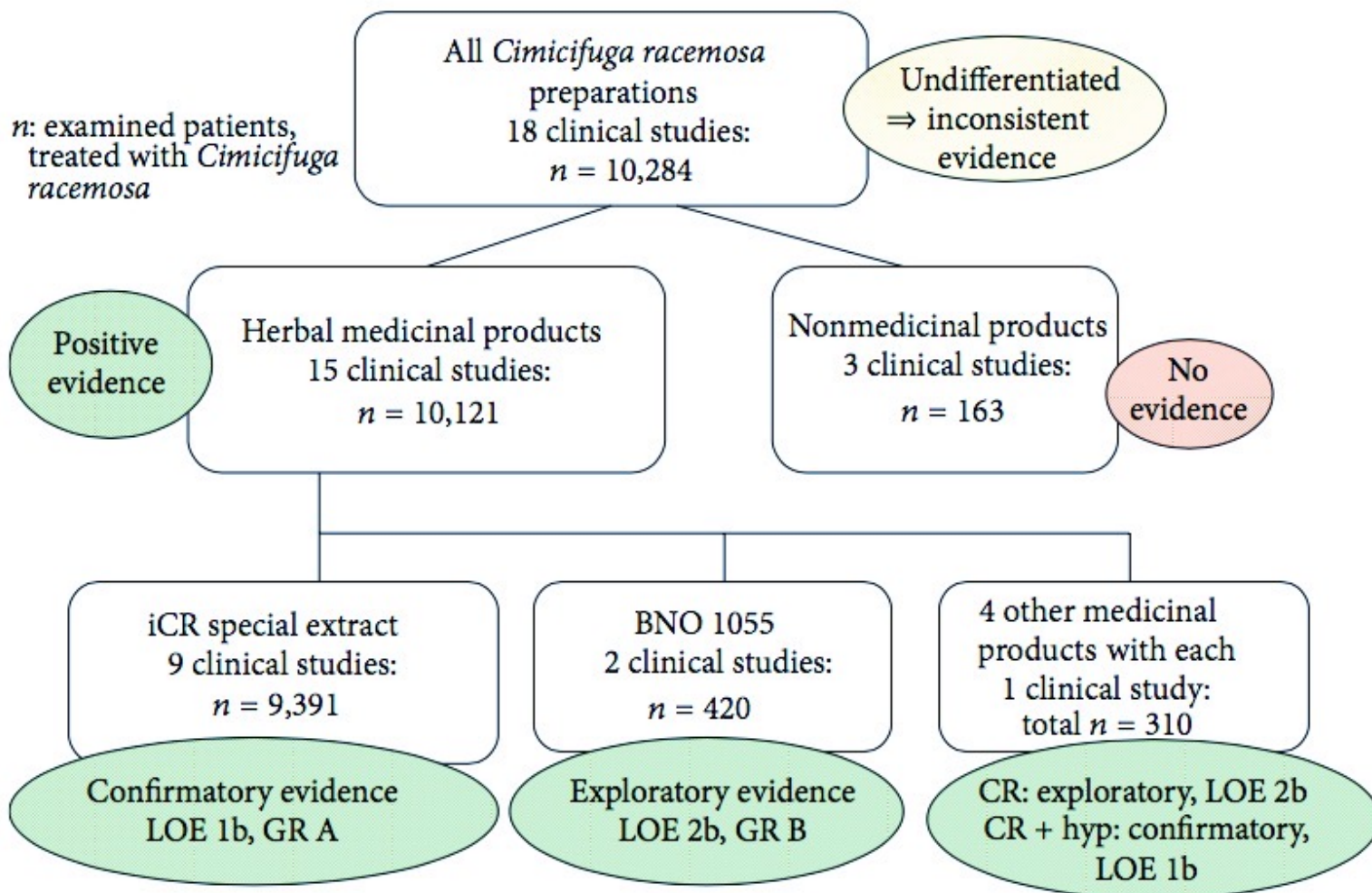
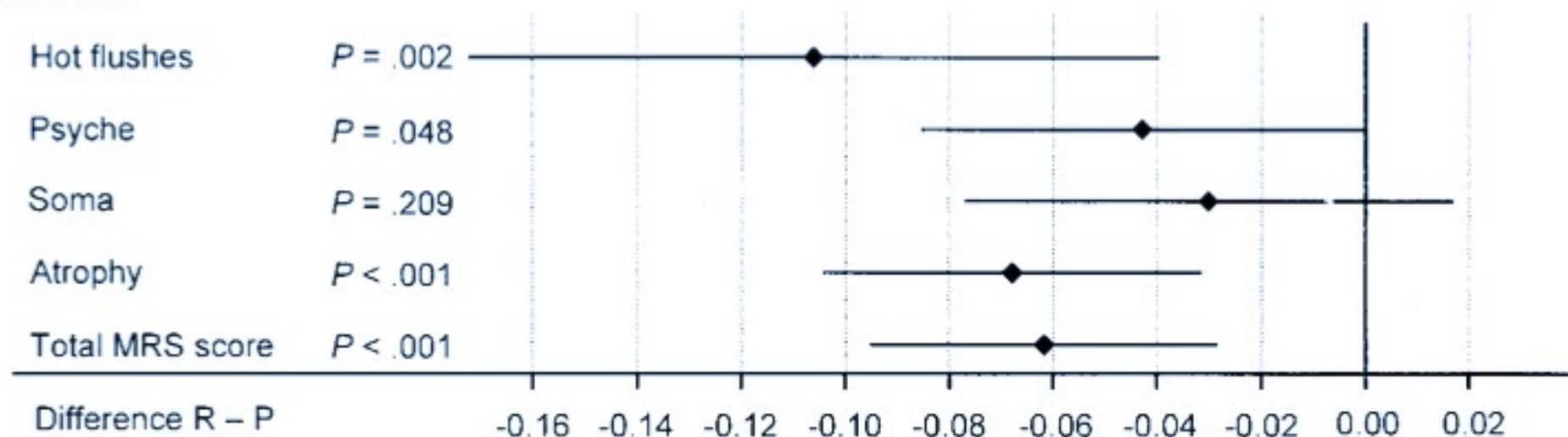


FIGURE 3: Efficacy data on *Cimicifuga racemosa* 2000–2012.

Efficacy and Safety of Isopropanolic Black Cohosh Extract for Climacteric Symptoms

Ruediger Osmer, MD, PhD, Michael Friede, PhD, Eckehard Liske, PhD, Joerg Schnitker, PhD, Johannes Freudenstein, PhD, and Hans-Heinrich Henneicke-von Zepelin, PhD

METHODS: This randomized, multicenter, double-blind clinical trial compared the efficacy and tolerability of the isopropanolic black cohosh extract in the treatment of climacteric complaints compared with placebo. A total of 304 patients were randomly allocated to receive tablets corresponding to 40 mg drug or matching placebo daily for 12 weeks. The primary efficacy measure was the change from baseline on the Menopause Rating Scale I; secondary measures included changes in its subscores and safety variables.



Purified Cytoplasm of Pollen (PCP) - composition

PCP contains two active ingredients: a pure pollen extract (GC Fem), and a combined pollen and pistil extract (PI 82); the latter contains high activity of the antioxidant enzyme superoxide dismutase⁹. The pollen and pistils are selected and harvested, separately, in a standardized manner, from members of the grass (Poaceae) family, including rye (*Cecale cereale*).

The pollen extract Femal—a nonestrogenic alternative to hormone therapy in women with menopausal symptoms

Ann-Cathrin Hellström, MD, PhD,¹ and Jonas Muntzing, PhD²



Meccanismo d'azione non estrogenico

- I campioni di estratto di polline sono stati sottoposti a cromatografia liquida ad alte prestazioni per l'analisi di fitoestrogeni.
- L'estratto di polline è stato testato per l'attività estrogenica su saggio biologico uterotropico nel ratto immaturo.

RESULTS: NO ESTROGENICITY IN *IN VITRO* AND *IN VIVO* TESTS

Table 1: Concentration of common isoflavonoid phytoestrogens in the pollen extracts PI 82 and GC FEM

Isoflavonoid concentration in the extracts, ng/mg extract						
Extract and batch	Daidzin	Genistin	Daidzein	Genistein	Formononetin	Biochanin A
PI 82						
570005101	94	9	22	nd	nd	nd
570008101	79	15	nd	nd	nd	nd
570009101	48	9	nd	nd	nd	nd
GC FEM						
578907103	59	nd	14	nd	nd	nd
578908101	50	13	11	nd	nd	nd
578909101	28	nd	10	nd	nd	nd
nd, not detected.						

Table 2: Uterotropic effect of the pollen extracts in Relizen, PI 82 and GC FEM, and its vehicle, and of the positive control ethinylestradiol and its vehicle

Treatment ^b						
		Ethinylestradiol	Ethinylestradiol		PI 82,GC FEM	PI 82,GC FEM
Uterus weight, mg ^a	Corn oil	0.3 µg kg ⁻¹ d ⁻¹	1 µg kg ⁻¹ d ⁻¹	CMC 0.5%	5 mg kg ⁻¹ d ⁻¹	500 mg kg ⁻¹ d ⁻¹
With luminal fluid	36 ± 4	41 ± 5	64 ± 9 ^c	42 ± 9	36 ± 5	38 ± 6
Without luminal fluid	28 ± 3	33 ± 4	52 ± 8 ^c	32 ± 6	28 ± 4	29 ± 6

CMC, carboxymethylcellulose.

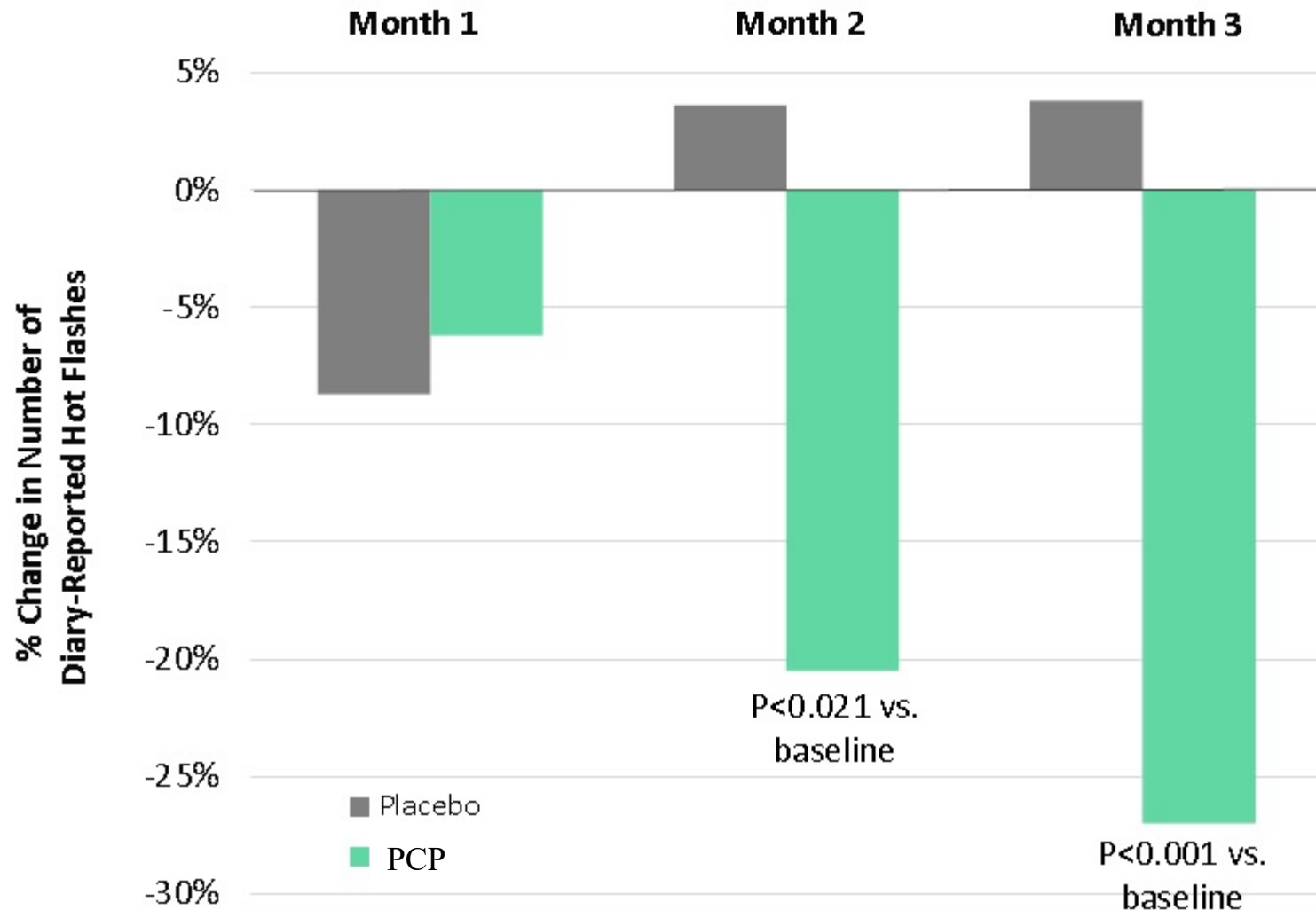
^aMean ± SD (n = 10).

^bBy gavage once daily for 3 days.

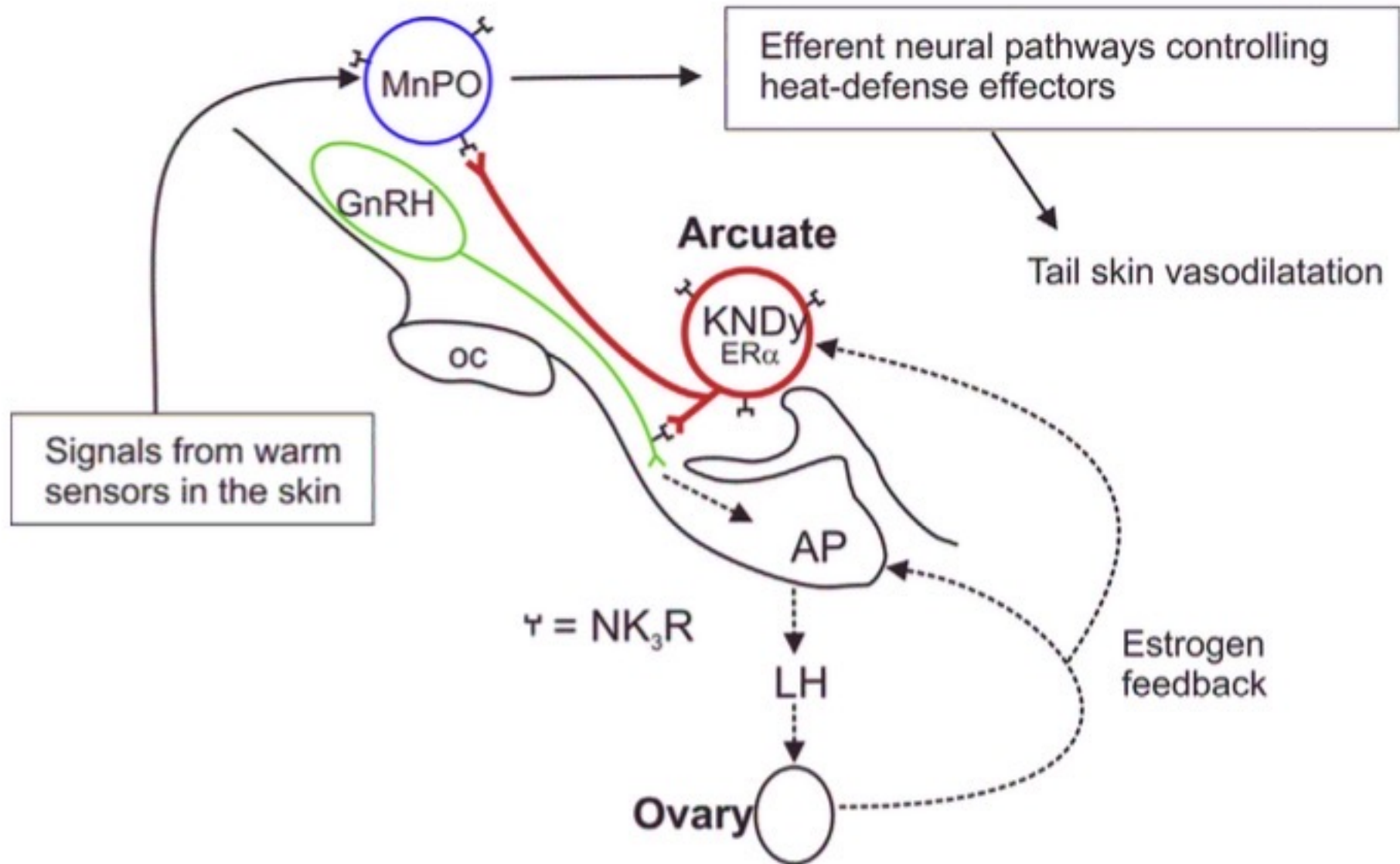
^cP < 0.01 when compared with the uterine weight of the corn oil vehicle group.

(Hellstrom et al. Menopause 2012)

PCP vs PBO in HFs



Preoptic hypothalamus



Neurokinin 3 receptor antagonism as a novel treatment for menopausal hot flashes: a phase 2, randomised, double-blind, placebo-controlled trial

Julia K Prague, Rachel E Roberts, Alexander N Comninou, Sophie Clarke, Channa N Jayasena, Zachary Nash, Chedie Doyle, Deborah A Papadopoulou, Stephen R Bloom, Pharis Mohideen, Nicholas Panay, Myra S Hunter, Johannes D Veldhuis, Lorraine C Webber, Les Huson, Waljit S Dhillon

