Non medical alternative treatment of vasomotor symptoms

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BMS 14 nov. 2015
Plan:

- Why...?
- When...?
- Types...?
- Conclusions!
Why …?

With increasing longevity, a women is expected to spend more than a third of her lifetime after menopause.
WHY...?

VMS have a negative impact on quality of life
Why ...?

- One of the well-known symptoms of menopause is the occurrence of hot flashes, which occur in >75% of menopausal women.

- The best estimation of total VMS duration comes from the Study of Women across the Nation (SWAN). Among 1449 women with VMS, the median total VMS duration was 7.4 years, with symptoms persisting for a median of 4.5 years after the final menstruation. Women who were premenopausal or early perimenopausal when they first experienced VMS had the longest total duration (>11.8 years, post-final menstruation median duration 9.4 years).
When... ?

1. Controindication to HRT
   - Breast cancer
   - VTE risk
   - CHD risk

2. Request from patients
   - 50 to 75 % of postmenopausal women use alternative therapies
Which type ...?

- For most of these therapies, safety and efficacy are not well established, but selected individual studies report benefit.

- Interpretation of the available data has been difficult given the small size and short duration of many studies.

- Attention: placebos reduce hot flashes in up to 50 percent of patients.

- Carefully controlled randomized trials are necessary to demonstrate efficacy of specific agents.
Which type ...?

- Phytoestrogens
- Black cohosh
- Acupuncture and hypnosis
- Exercise
Which type ...?

• The term **Phytoestrogens** is generally used to define a class of compounds that is non-steroidal and is either of plant origin or metabolically derived from plant precursors.

• Hundreds of foods have been shown to contain phytoestrogens.

• Most belong to one of three classes: *isoflavones, lignans or coumestans.*
Which type ...? Phytoestrogens

- **Isoflavones** are found in beans from the legume family with soybeans and soy products being the major dietary source.

- **Lignans** are found in high fiber foods such as unrefined grains, cereal brans and beans, with flaxseed containing the largest amount.

- Foods containing the highest amount of **coumestans** include red clover, with lesser amounts also found in split peas, pinto beans and lima beans.
Which type ...? Phytoestrogens

- After the consumption of plant isoflavones, lignans and coumestans, enzymatic metabolic conversions occur in the gut, resulting in the formation of heterocyclic phenols; isoflavones are metabolized to aglycones, genistein and daidzein, lignans to secoisolariciresinol-diglucoside (SDG), and coumestans to coumestrol.

- The breakdown products all contain the presence of a phenolic ring that can compete for binding to the “pocket” of estrogen receptors.

- However, all are selective estrogen receptor modulators and each has a profile of action of its own.

- Whereas their affinity for binding is only $1/500–1/1000$ of that of estradiol, they compete with estradiol for receptor sites.
Which type …? Phytoestrogens

- Relative in vitro binding affinity for the estrogen $\alpha$ receptor is estradiol $\gg$ coumestrol $>$ genistein $>$ daidzein $>$ biochanin A $>$ formononetin.

- In vitro binding affinity for the estrogen $\beta$-receptor is estradiol $\gg$ genistein $=$ coumestrol $>$ daidzein $>$ biochanin A $>$ formononetin.
Which type ...? Phytoestrogens

• An issue of potential concern is that phytoestrogens are SERMS and therefore have both estrogen agonist and antagonist effects.

• However, the impact of increasing dietary soy or taking concentrated isoflavone supplements on breast cancer risk or breast cancer recurrence in women with estrogen receptor positive (ER+) breast cancer is unknown.
Which type ...? Phytoestrogens

- In a review of 11 randomized clinical trials of soy or isoflavone supplementation, only three of eight trials with at least six weeks of follow-up demonstrated a beneficial effect.

- A 2013 systematic review of 43 clinical trials found no beneficial effect of phytoestrogens of any type on hot flashes, with the exception of genistein. Results of four genistein trials suggested that doses >30 mg/day might reduce hot flashes frequency compared with placebo.


Which type ...? Phytoestrogens

✓ Insufficient clinical trials exist to support routine, long-term therapy with phytoestrogens, and differences among classes of phytoestrogens must be identified clearly, including dosing and biologic activity.

✓ In references addition, results of animal trials must be interpreted cautiously as they do not appear to be fully applicable to humans.

✓ Inconsistent evidence of efficacy
Which type ...? black cohosh

Among the alternative therapies available for management of hot flashes, black cohosh (Actaea racemosa or Cimicifuga racemosa) is one of the most widely used.


Which type …? black cohosh

- In a meta-analysis of 16 trials that included 2023 women using oral preparations of black cohosh for a mean of 23 weeks, there was no significant difference between black cohosh and placebo in frequency or severity of hot flashes.

- A potential safety concern about black cohosh is its possible estrogenic effect on the breast, but there is no evidence to date that use of black cohosh is associated with increased risk of recurrence in women with ER+ breast cancer.

- There have also been concerns about possible hepatotoxicity (abnormal liver function tests) with black cohosh, but a meta-analysis of five black cohosh trials involving a total of 1117 women found no evidence of an adverse effect on liver function.

Which type ...? black cohosh

✓ Interpretation of the available data has been difficult given the small size and short duration of many studies.

✓ There is insufficient evidence to support the use of black cohosh for menopausal symptoms.
Which type ...? exercise

• Evidence is conflicting as far as hot flushes are concerned.

• In 2007 a Cochrane review found no evidence from randomised controlled trials on whether exercise is an effective treatment relative to other interventions or no intervention in reducing hot flushes and or night sweats in symptomatic women.

• In the Longitudinal Melbourne Women’s Midlife Health Project, in which 438 women were followed over 8 years, those who exercised every day at baseline were 49% less likely to report hot flushes, and those whose exercise levels decreased were more likely to report hot flushes.

• A prospective study of moderate aerobic exercise decreased hot flushes 24 h after exercise; however, in women with lower fitness levels, more daily moderate physical activity led to more self-reported symptoms.
Which type ...?exercise

✓ A meta-analysis has not found a significant beneficial effect of exercise on hot flushes.

✓ Inconsistent evidence of efficacy

Which type ...? Acupuncture and hypnosis

- **Acupuncture** has been studied as a potential therapy for hot flushes, but results are conflicting.

- **Hypnosis** may be beneficial for hot flushes, but data are limited. At 12 weeks of follow-up, the mean reduction in physiologically-monitored hot flushes per day was six (57 percent) in the hypnosis group versus one (10 percent) in the control group. While these results appear promising, the response rate in the control group is unusually low; a placebo effect of 20 to 50 percent is typically seen in hot flash trials.
Which type ...? Acupuncture and hypnosis

- Before hypnosis and acupuncture can be recommended, procedures need to be standardized and educational tools developed to facilitate development of competency with this method.

- Therapies requiring further study
Conclusions!

- They are not just plants !!!!!!!!
- Be careful! Precautions in patients with history of breast cancer.
- There is no evidence based medicine on their safety in patients with breast cancer.
Conclusions!

- It’s not a first choice in women with severe VMS
- It can be used in cases of moderate VMS
- Chochrane shows benefits in hot flush only for genistein (particular metabolits from isoflavons)
- Listen the patients
Conclusions ...

We have a work

We need bigger and randomized multicenter studies
Thank you