

Topics to be discussed

by

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1. Reading the risks of hormonal treatments
2. PT's, EPT's or ET's
3. When HRT is not possible

READING THE RISKS OF HORMONAL TREATMENTS

- a) Relative Risks? (RR's)
- b) Absolute Risks? (AR's)
- c) Number Needed to Treat? (NNT)
- d) Number Needed to Harm? (NNH)
- e) How do they compare with other risks?

To Know ...

What is it?

It is the **selective** and **critical** acquisition of information and its **concerted integration** in our mind.

Are we being well **informed**?

or

“well” **misinformed**? ...

Information is based on Epidemiological studies

- How were they performed?
- What similarities do they have with our clinical practice?
- How to interpret them?

Epidemiological studies

- 1. Descriptive studies**
- 2. Analytical studies**
- 3. Experimental studies**

1. Descriptive Studies

- **Who** has the disease?
- **What** is the disease?
- **Why** did the condition arise?
- **When** does the disease occur?
- **Where** does the diseases occur?
- **What** is the clinical importance of report?

2. Analytical Studies

- Cross-sectional
- Observational :

Case control (starts from a disease and looks back in time at exposure)

Cohort studies (from exposure to outcome; natural history of disease)
(NHS)

then ...

How to screen

what **is true** and

what **is not** ?...

The “language” of the results

- . Absolute risks (AR)
- . Relative risks (RR)
- . Number needed to treat (NNT)
- . Number needed to harm (NNH)
- . Number needed to screen (NNS)
- . Events per woman / years (W/Y)
- . Events per total number of women

Example of Absolute Risk

- *If you buy one lottery ticket you will have a one in 1 million chance of winning*
- *If you buy five lottery tickets your chances are five fold higher or 5 in one million*
- **Your chances of winning are increased by five fold (relative risk)**

Relative Risk

The risk of an event occurring under certain circumstances compared to the risk under other circumstances

Attributable or Excess Risk

The difference between underlying risk and risk when receiving HT is called the **attributable or excess risk**

Do not confuse...

Relative Risk

with

Absolute Risk!

Conclusion

- **Relative risk** is a *confusing* word and is only important if the absolute chances of an event are high
- **Attributable or excess risk** is the thing that one should be most concerned about

What is

a woman / year ?!

100 woman/years = 100 women treated during 12 months

is it the same as

100 woman/years = 400 women treated during 3 months

?

3. Experimental Studies

- **Controlled randomized trials**
(WHI)
- **Crossover trials**

Confidence interval (C.I.)

A 95% C.I. signifies that there is a 95% chance that the population “true value” lies between the two limits.

If C.I. crosses the “line of no difference” the point at which a benefit becomes a harm (i.e.1) then one can conclude that the results are not statistically significant

Does
“**Statistically Significant**”
always equate to
“**Clinically Relevant**”?

p Value

Is the possibility of
obtaining the observed
relative risk by chance

(*p* must be < 0.05)

Type of association

- Spurious
- Indirect
- Casual

Strenght of association

Consistency

Dose response relationship

Specificity

Biological plausibility

Validity

Internal: the study measured what is set out to measure

External: the results can be extrapolated to one's patients

Observational research (NHS) may have

poorer internal validity

better external validity

Randomized controlled trial (WHI)

better internal validity

poorer external validity

Do not confuse...

Morbidity

with

Mortality

Breast cancer

WHI

RR **1.26**

ARC 0.30% / 10.000 / yr

C.I. (1.00 – 1.59)

ART 0.38% / 10.000 / yr

Attributable risk = 8/10.000 / yr

= 1/1.250 / yr

NNH

= **1.250 / yr**

Breast cancer

HERS

RR= 1.27

ARC = 0,59% / 10.000 / yr

C.I.(0,84-1.94)

ART = 0,47% / 10.000 / yr

Attributable risk = 12 / 10.000 / yr

= 1 / 833 / yr

NNH

= 833 / yr

*“Randomized, controlled trials.
Observational studies, and the
hierarchy of research designs”*

The popular belief that **only randomized, controlled trials produce trustworthy results and that all observational studies are misleading** does a disservice to patient care, clinical investigation, and the education of health care professionals.

Concato J. et al. NEJM (2000);342:1887-1892.

“Which clinical studies provide the best evidence?”

... an earlier systematic review also found **no consistent difference between randomized controlled trials and observational studies** in estimates of the effects of treatment in 22 areas.

“Which clinical studies provide the best evidence?”

The **new studies** do not justify a major revision of the hierarchy of evidence, but **they do support a flexible approach in which randomized controlled trials and observational studies have complementary.**

Barton S. BMJ 2000;321:255-256

Epidemiological Studies

PLEASE!

Do not read only the titles...

Do not read only the abstracts...

Do read the full paper !

Be critical!

Make up your own mind!

PT's, EPT's or ET's:

- a) when to start?**
- b) which steroid molecules?**
- c) the routes of administration?**
- d) the schemes of administration?**
- e) for how long?**

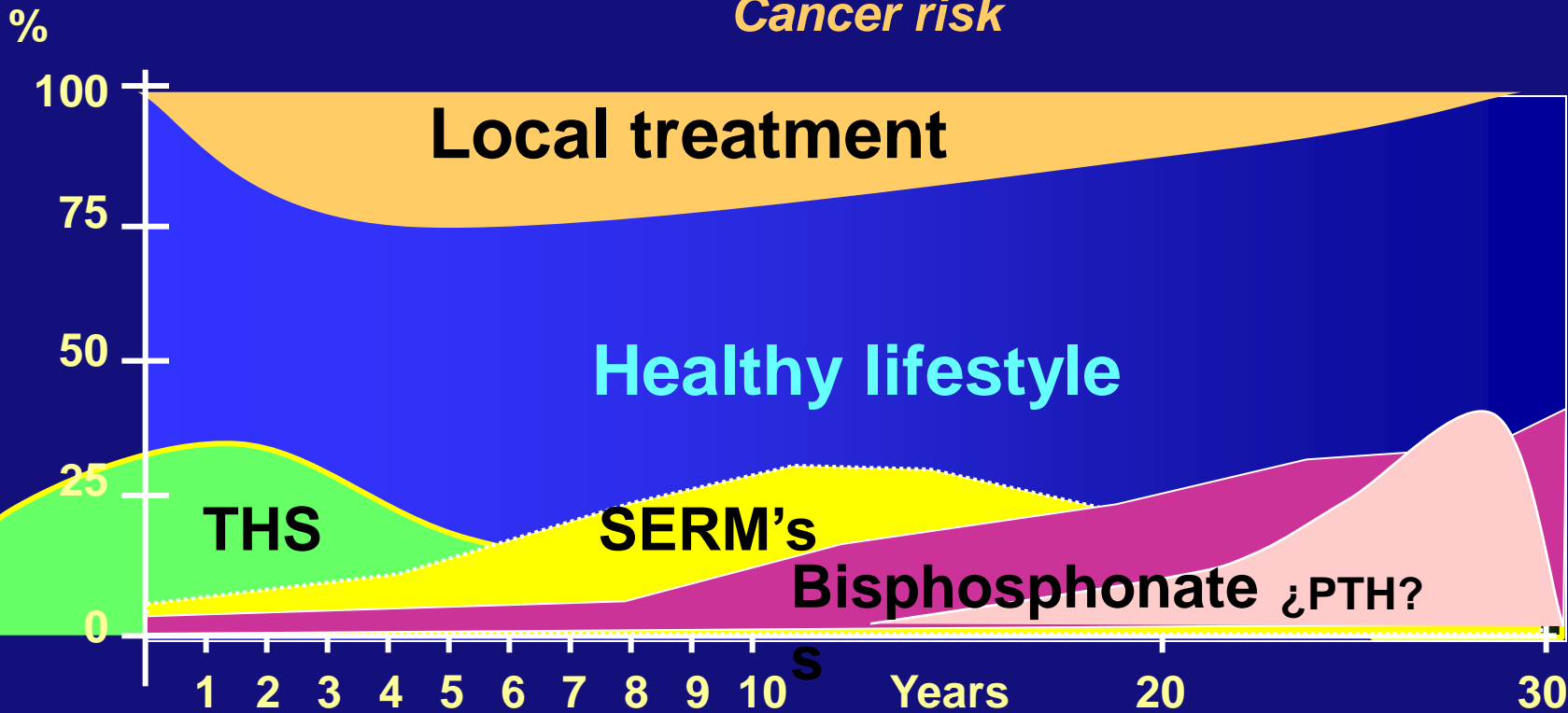
Dynamic decision making chart after WHI

Densitometric Established Osteoporosis



Symptoms

Cancer risk



Peri

Postmenopause

Late menopause

**WHEN
HRT
IS NOT POSSIBLE**

HRT is not possible ...

- When it is not wanted by women.**
- When women do not feel the need**
- When there are contraindications.**

HRT is indicated for:

- Relief of symptoms
- Maintenance and improvement of health
- Prevention (primary and secondary) of diseases

The attending physician must

- **adopt a holistic vision of the middle age woman who comes to him for *support***
- **be concerned and involved in all the aspects that define *health***

Health

« Health is a condition of physical, mental and social wellbeing and not only the absence of disease. »

W.H.O.

A modern gynecologist must ...

**know how to identify risk
factors and to modify them in
order to prevent diseases.**

MNC

The middle-age woman

- the biological syndrome
- the psychic and neurovegetative syndromes

A tripod to support good health and longevity

- **aerobic exercise**
- **rational nutrition**
- **pharmacological intervention**

More specific interventions what to do ...

- To prevent coronary heart disease (CHD)?
- To decrease insulin-resistance?
- In cases of resistant obesities?
- To prevent osteoporosis?

Practical Guidelines

- **Start a Mediterranean diet**
- **Start a program of physical fitness, and exercise as much as possible**
- **Keep mentally active**
- **Reformulate the life-style**

Strategies

1. Time to listen
2. Physical activity
3. Anti-Stress
4. Vasomotor symptoms
5. Insomnia
6. Headaches and migraine
7. Dyspareunia, frigidity

HOT FLASHES & NOCTURNAL SWEATINGS

- **Gapapentin** (300 mg t.i.d.)
- **Venlafaxine**
- **Vitamin E** (800 I.U. / day)
- **Tramadol** (200 mg / day)
- **Progestagens**