

ESTRADIOL PELLETT IMPLANTS FOR ESTROGEN REPLACEMENT THERAPY

by

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A Retrospective Longitudinal Study

Material (1)

Total number of patients	158
Total number of implants	601
Maximum follow up time (years)	14

Material (2)

46 women were not included in this study because:

- they only came back 1 year after the implant or**
- they did not have estradiol assays**

Material (3)

Cases used for this study	112
Women who had > 4 implants	83
<i>Follow up time:</i>	
< 2 years	18%
3-8 years	67%
> 8 years	15%

Preference for E2 implants

- convenience
- skin irritations with patches
- hypertriglyceridemia
- cost

Estradiol implants

- Pellets with 25 mg of 17 β estradiol (Organon UK)
- inserted through a trocar under local anesthesia, in
- lower quadrants of the abdominal wall (subcutaneous)

Inclusion criteria

- **hysterectomy + bilateral oophorectomy**
- **symptoms and/or signs of estrogen deficiency**
- **no contraindications for ERT**

Clinical and biochemical monitoring

(1)

- symptoms
- weight and % fat
- BMI
- blood pressure

Clinical and biochemical monitoring

(2)

- vaginal maturation index
- mammograms
- DPX bone densitometry

(using the same equipment)

Clinical and biochemical monitoring

(3)

- blood lipids
- plasma estradiol

(using the same laboratory)

Choice of the dosage

25 or 50 mg every 6 months:

- 25 mg if
oophorectomy > 5 years or age >50 years
- 50 mg if
oophorectomy < 5 years or age < 50 years

Plasma Estradiol assays

- at 6 months after the implant

or

- sooner, if there were signs/symptoms of estrogen deficiency

Implant repeated

- if plasma Estradiol < 50 pg/ml

or

- if symptoms of estrogen deficiency were present,
(even if E2 > 50 pg/ml) with a shift to the left of
the vaginal maturation index

Dosage of the following implant

- 25 mg \leftrightarrow 50 mg (if interval < 4 months)

or

- 50 mg \leftrightarrow 25 mg (if mastodynia developed)

Side effects

- **hypertension** **none**
- **weight gain (>2 Kg)** **none**
- **mastodynia** **<10%**
(of No.of implants)

Metabolic effects

- **blood lipids** *improved (or stable)*
- **bone mineral density** *improved (or stable)*
- **quality of life** *improved*
- **vaginal epithelium** *ok*

Results (1)

- **the interval between implants was greater than 8 months in 70% of the total implantations**

Results (2)

- **20% of the cases had reimplantations with intervals greater than 8 months**
- **in 10% of the cases the intervals were progressively increasing**
- **in 65% of the cases there was a variation of the intervals**

Results (3)

- following these criteria for reimplantation there were no cases of tachyphylaxis
- the estradiol plasma levels (60-120 pg/ml) which were achieved with this technique had positive metabolic effects

Conclusions (1)

After an estradiol implant one should not repeat the implantation of pellets unless there are signs/symptoms (*vagina, vasomotor symptoms, mood, sleep*) of estrogen deficiency or the plasma levels of estradiol fall below 50 pg/ml

Conclusions (2)

E2 pellet implants are convenient and safe for ERT