Iodine replacement in fibrocystic disease of the breast.


Source

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Abstract

OBJECTIVE:

To determine the response of patients with fibrocystic breast disease to iodine replacement therapy.

DESIGN:

Review of three clinical studies beginning in 1975: an uncontrolled study with sodium iodide and protein-bound iodide; a prospective, control, crossover study from iodide to molecular iodine; and a prospective, control, double-blind study with molecular iodine.

SETTING:

University affiliated breast-treatment clinics.

PATIENTS:

Study 1: 233 volunteers received sodium iodide for 2 years and 588 received protein-bound iodide for 5 years. Study 2: the treatment of 145 patients from study 1 treated with protein-bound iodide for several months who still had symptoms was switched to molecular iodine 0.08 mg/kg; 108 volunteers were treated initially with molecular iodine. Study 3: 23 patients received molecular iodine, 0.07 to 0.09 mg/kg body weight; 33 received an aqueous mixture of brown vegetable dye and quinine. The numbers in study 2 increased over the review period so that 1365 volunteers were being treated with molecular iodine by 1989.

INTERVENTIONS:

All patients in study 3 had pre- and post-treatment mammography and measurement of serum triiodothyronine, thyroxine and thyroid-stimulating hormone levels.

MAIN OUTCOME MEASURES:
Subjective evaluation--freedom from pain--and objective evaluation--resolution of fibrosis.

RESULTS:

Study 1: 70% of subjects treated with sodium iodide had clinical improvement in their breast disease, but the rate of side effects was high; 40% of patients treated with protein-bound iodide had clinical improvement. Study 2: 74% of patients in the crossover series had clinical improvement, and objective improvement was noted in 72% of those who received molecular iodine initially. Study 3: in the treatment group 65% had subjective and objective improvement; in the control group there was a subjective placebo effect in 33% and an objective deterioration of 3%.

CONCLUSIONS:

The fibrocystic breast reacts differently to sodium iodide, protein-bound iodide and molecular iodine. Molecular iodine is nonthyrotropic and was the most beneficial.

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