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Evidence that irradiation of far-infrared rays inhibits mammary tumour growth in SHN mice.

[Nagasawa H](#), [Udagawa Y](#), [Kiyokawa S](#).

Experimental Animal Research Laboratory, Meiji University, Kawasaki, Japan.

To evaluate the effect of irradiation of far infrared rays (FIR), the growth of spontaneous mammary tumours of SHN mice was compared among 3 groups: the control was kept until the end of experiment on the normal rack in the absence of FIR and Experimental group I was constantly exposed to FIR. Experimental group II was raised as the control followed by movement to the FIR rack after mammary tumour appearance. While there was little difference between the control and Experimental group I in mammary tumour growth for 16 days, Experimental group II was significantly lower than the control in this parameter. Furthermore, the percentage of rapidly growing tumours showing greater than 200% of growth rate was apparently lower in Experimental group II. Associated with this, epidermal growth factor receptor expression in mammary tumours, anterior pituitary weight and serum leptin level were significantly decreased in Experimental group II. The findings suggest that whole-body FIR irradiation at ambient temperature could be a possible way of a hyperthermic therapy for tumours.

PMID: 10470118 [PubMed - indexed for MEDLINE]

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- ▶ Effects of hydroxyapatite in combination with far-infrared rays on spontaneous mammary tumorigenesis in SHN mice. [Am J Chin Med. 2002]
- ▶ Effects of combined treatment with coffee cherry and whole-body hyperthermia on the growth of spontaneous mammary tumours in SHN mice. [Int J Hyperthermia. 2000]
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