

*Glaser*

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Abstract I-1 has been changed to the following:

ACUTE MICROWAVE EXPOSURE AND CENTRAL CHOLINERGIC ACTIVITY: PARAMETERS OF RADIATION. H. Lai, A. Horita & A.W. Guy, University of Washington School of Medicine, Seattle, Washington, USA

Rats were irradiated with continuous-wave or pulsed (500 pps, 2  $\mu$ s) 2450-MHz microwaves in circular waveguides (Guy et al., Radio Sci. 14: 63, 1979) or miniature anechoic chambers (Guy, J. Microwave Power 14: 327, 1979). The average whole body SAR was 0.6 W/kg in all irradiation conditions. Controls were animals sham-irradiated in similar exposure system. Immediately after 45 min of exposure, sodium-dependent high-affinity choline uptake was determined in the striatum, frontal cortex, hippocampus, and hypothalamus. Frontal cortical choline uptake was decreased under all irradiation conditions. Hippocampal choline uptake was decreased in animals exposed to pulsed microwaves. Striatal choline uptake was decreased after microwave exposure in the miniature anechoic chamber. Microwaves did not significantly affect hypothalamic choline uptake under all irradiation conditions studied. Thus, the effects of microwaves depend on the parameters of the radiation.