Abstracts

A 5.8 GHz Ophthalmic Microwave Applicator for Treatment of Choroidal Melanoma

P.T. Finger, S. Packer, P. Svitra, R.W. Paglione, D.M. Albert and J. Chess. "A 5.8 GHz Ophthalmic Microwave Applicator for Treatment of Choroidal Melanoma." 1983 MTT-S International Microwave Symposium Digest 83.1 (1983 [MWSYM]): 177-179.

We report on the use of a 5.8 GHz microwave applicator to treat choroidal melanoma (Greene) in rabbits. The physical requirements needed to treat these intraocular tumors are quite different from those encountered elsewhere in the body. From a trans-scleral approach the penetration needed is minimal (5-10 mm.). The fibrous sclera is the only structure between the heat source and the tumor. The sclera has a relatively low water content when compared to tumor. This fact in addition to the frequency dependent interactions of tissue and electromagnetic radiation, results in an advantage to the use of the 5.8 GHz microwave device in treating intraocular malignancies.

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