Abstracts

Studies of Microwave Thermal Balloon Angioplasty in Rabbits

A. Rosen, P. Walinsky, D. Smith, Z. Kosmari, A. Martinez, F. Sterzer, A. Presser, D. Mawhinney, J.-S. Chou and P. Goth. "Studies of Microwave Thermal Balloon Angioplasty in Rabbits." 1990 MTT-S International Microwave Symposium Digest 90.1 (1990 Vol. I [MWSYM]): 537-540.

The study into the technique of microwave (2.45 MGz) thermal balloon angioplasty has established a correlation between recorded temperature and observed injury. In addition, a trend pointing toward an inverse relationship between intimal proliferation and medial injury has been observed. Angioplasty was performed on 30 normal New Zealand white rabbits, providing 60 iliac arteries for histopathologic analysis. The angioplasty catheter consists of a 3.0mm angioplasty ballon with an intrinsic thermocouple placed on the interior surface of the mid-portion of the balloon. A 0.023 inch coaxial cable was used to deliver the microwave power, and a slot antenna configuration was chosen for the radiating element.

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