Abstracts

Microwave treatments for prostate disease (Nov. 2000, Part I [T-MTT])

F. Sterzer, J. Mendecki, D.D. Mawhinney, E. Friedenthal and A. Melman. "Microwave treatments for prostate disease (Nov. 2000, Part I [T-MTT])." 2000 Transactions on Microwave Theory and Techniques 48.11 (Nov. 2000, Part I [T-MTT] (Mini-Special Issue on RF/Microwave Applications in Medicine)): 1885-1891.

Describes three novel microwave techniques that show promise for being useful in treating diseases of the prostate. They are: microwave urethroplasty for providing immediate symptomatic relief of urinary obstructions caused by benign prostatic hypertrophy-this technique uses microwave balloon catheters for producing biological stems in the urethra. Initial results obtained in an Federal Drug Administration approved Phase I clinical trial are highly encouraging, hyperthermia produced in the prostate by dual microwave balloon catheters-when combined with external beam radiation or implanted radioactive seeds, this technique has the potential of improving local recurrence rates of prostate cancer over the rates that are obtained when only radiation treatments are given, and microwave poration therapy-a therapy that, when combined with either systemic or locally administered chemotherapy, has been shown to be effective in shrinking implanted prostatic tumors in rats. The potential clinical advantages of microwave poration/chemotherapy over electrochemotherapy using dc pulses for treating cancers are discussed.

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