

become circular in this plane whereas half power beam width of $|E_\phi|^2$ (figure 3) patterns increases in plasma.

The plot of $|E_p|^2$ as shown in figure 4 is similar to other microstrip and conventional antennas⁵⁻⁹.

The radiation efficiency in a two-component plasma is greater as compared to a one-component plasma. However, it is substantially greater in comparison with half wave dipole.

ACKNOWLEDGEMENT

The authors are indebted to ISRO, Bangalore for providing the project grant and research fellowship to DB.

7 February 1985

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NEWS

HELP FOR FATIGUE FROM ALPHA INTERFERON

... "Recombinant alpha interferons have ... shown activity in many forms of leukemia and lymphoma. Tachyphylaxis [decreasing responses following repeated injections] to the acute toxic effects (fevers, rigors, myalgias, headache, and so forth) occurs with the first few doses, but fatigue and anorexia are often persistent and progressive, requiring substantial reductions in the dose or even cessation of therapy. We postulated that the typical hospital or clinic routine of morning injections, with serum interferon levels peaking in the afternoon, might be partially responsible for the fatigue encountered, since even mild or unnoticeable symptoms could produce the 'washed out' feeling that patients often described. In addition, we found that patients did not always sleep well at night after being fatigued and sleepy during the day. We are currently conducting several studies employing recombinant alpha interferon

(Roferon) at doses ranging from 3 million units daily to 50 million units per square meter of body-surface area three times a week. After tachyphylaxis to the acute toxic effects, we began treating patients in the evening. Approximately 75% of all the patients, and 90% of those taking the low daily dose, reported an improvement in their energy level, as compared with that experienced by patients taking interferon during the day. ... We believe that evening administration of alpha interferon is preferable for patients and may be applicable to other biologic response modifiers in which fatigue is a major toxic effect."

[(Paul G. Abrams et al. (Natl. Cancer Inst.) in *New England Journal of Medicine* 312(7):443-4, 14 Feb 85 (Letter to the editor)). Reproduced with permission from Press Digest, *Current Contents*®, No. 15, April 15, 1985, p. 15, (Published by the Institute for Scientific Information®, Philadelphia, PA, USA.)]