

Full Paper

Effects of low temperature plasma on prostate cancer cells using the Bovie Medical J-Plasma® device

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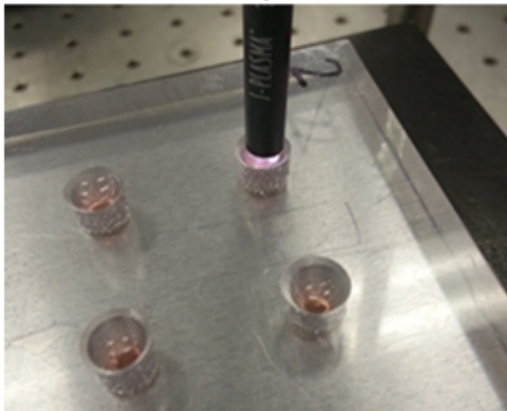
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Abstract

The efficacy of low temperature plasma generated by an atmospheric pressure plasma jet, J-Plasma system (™Bovie Medical Corporation), is studied for its therapeutic effects against the DU145 prostate cancer cell line. The DU145 cells in complete culture media were treated with different exposure times and different J-Plasma system parameters. The optimum settings of the J-Plasma system were identified based on the cancer cell viability at 0, 12, 24, 48, and 72 h post-low temperature plasma treatments. The results indicate that J-Plasma killing and cell viability was exposure time dependent and induced a reduction in cell proliferation and delayed killing effect.



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