
Plasma activated medium by non-thermal biocompatible jet plasma induced inactivation involves apoptotic cell death in ovarian cancer cells

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Reactive oxygen species (ROS) and reactive nitrogen species (RNS) are the key regulators in cell death and oxidative modification process by membrane peroxidation, mitochondrial malfunction etc. Recently, we reported a cellular mechanism using non-thermal biocompatible atmospheric plasma (NBP) in cancer cells and stemlike/precursor cells. In this study, we investigated plasma activated medium (PAM) by NBP to generating ROS/RNS. For this application, we treated with ovarian cancer cells from human ovarian tissue that SK-OV-3. Ovary is the organ that is sensitive and difficult to treat directly. So that we prepared PAM using NBP-soft jet to cell culture medium, and then transfer to ovarian cancer cell, in this experiment we used RPMI-1640 medium without serum.

Keywords: atmospheric-pressure non-thermal bio-compatible, ROS, RNS, plasma activated medium, ovarian cancer cell, MMT, western blot, apoptosis,

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