THE EFFECT OF THE PLASMA-ACTIVATED MEDIUM ON CANCEROUS AND NON-CANCEROUS CELLS

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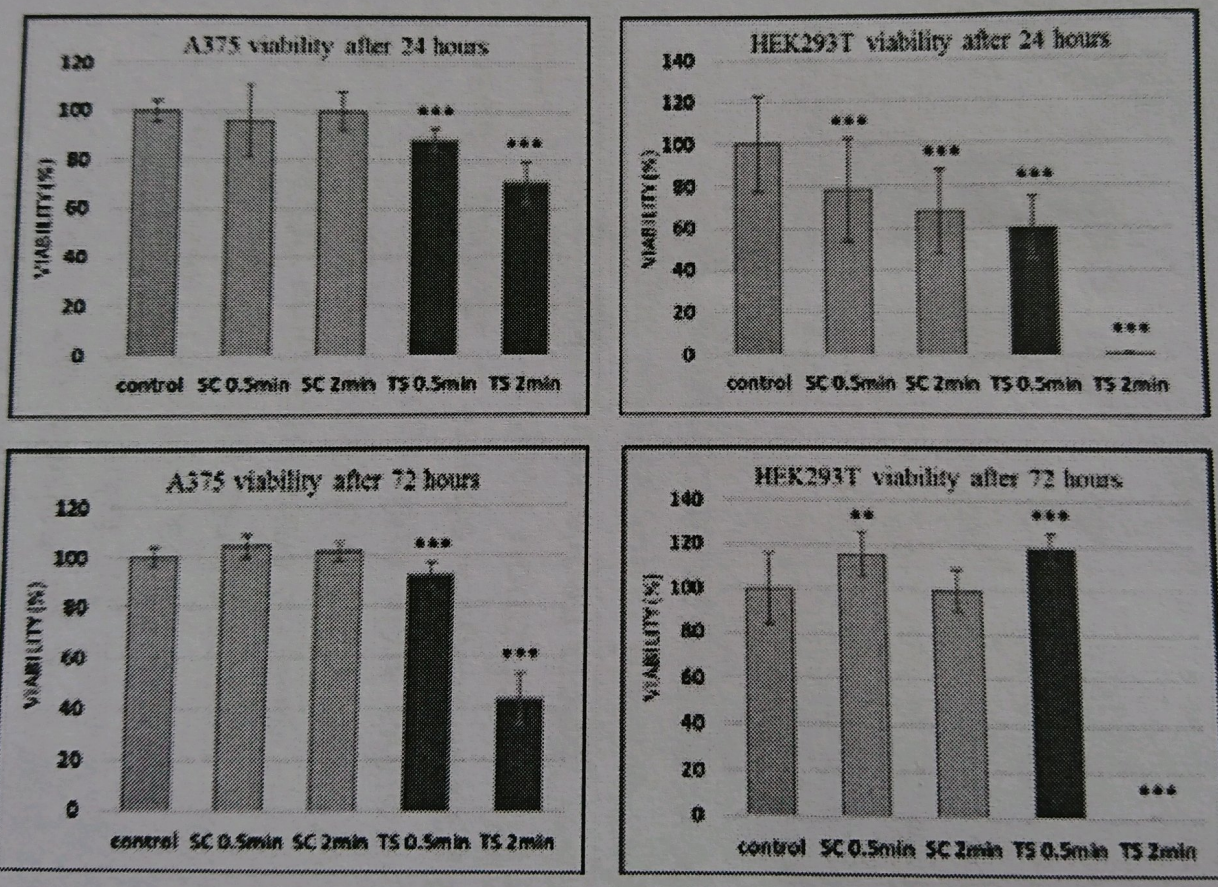
Non-thermal plasma can be applied to live tissues and cells directly and indirectly, and its anticancer effect and potential selectivity are the subject of many current studies. We tested the effects of the plasma-activated medium (PAM) on non-cancer and cancer cells *in vitro*. We used two experimental models; human epithelial melanoma cells A375 and non cancer human embryonic epithelial kidney cells HEK293T. We studied the effect of two types of cold atmospheric plasma discharge; streamer corona and transient spark with two different exposure times (0.5 min/ml and 2 min/ml) to activate the medium. We applied the PAM on cells two hours after exposure of medium to plasma. We investigated the effects of PAM on cells by metabolic MTT assay and we studied microscopic changes of the cells confluence, size and shape of cells using light microscopy. The measurements were made 24 hours and 72 hours after the application of PAM on cells. The results are shown in figure.



Key words: non-thermal plasma, plasma-activated medium, cancerous cells, non-cancerous cells

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