



WOUND HEALING

THE EFFECT OF KELOID FIBROBLAST CONDITIONED MEDIUM ON NORMAL FIBROBLAST PROLIFERATION

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Introduction: Keloid is a benign hyperproliferation of dermal fibroblast cells with excessive deposition of the extracellular matrix component due to abnormal wound healing. Fibroblasts are cells that play major role in wound healing. In the presence of transforming growth factor-beta (TGF- β), normal fibroblast cells will proliferates so that wound healing occurs. The conditioned medium of keloid fibroblast cells cultured produce high levels of TGF- β . Normal fibroblast cells cultured on keloid fibroblast conditioned media should increase in proliferation rate.

Objective: To know the effect of keloid fibroblast conditioned medium in normal fibroblast proliferation rate.

Materials and Methods: In-vitro studies of normal fibroblast cell derived from fetal cultures in conditioned media of keloid fibroblasts as treatment groups and normal fibroblast cultures in standart medium as control groups. The proliferation of fibroblast cells calculated before and after culture every 3 days upto 12th day by using LUNA IITM automatic cell counter.

Results: The independent t-test in both treatment and control groups showed no significant difference in the number of fibroblast cells ($p > 0.05$).

Conclusion: There is no effect of keloid fibroblast conditioned media on the growth of normal fetal derived fibroblast. Keloid fibroblast cell conditioned media does not increase the proliferation of normal fetal derived fibroblast cells.

