

Responsiveness of Werner's syndrome cultured skin fibroblasts to growth factors

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Since Werner's syndrome (WS) and progressive systemic sclerosis (PSS) have some similar phenotypic expressions, we performed a comparative study on the responsiveness of those cultured cells to basic fibroblast growth factor (bFGF). Skin fibroblasts were obtained by outgrowth culture of the biopsies from a WS and two PSS patients and used after only one passage in these experiments. The medium used was supplemented with fetal bovine serum in 10% all the time through these cultures. Cell proliferation was stimulated in the presence of bFGF to a similar extent in these three cell cultures (up to 2.5 times of the culture without it). Collagenase production per cell in the presence of bFGF was also increased; the responsiveness of WS cells was lower than that of PSS cells. The significance of this difference in the responsiveness to bFGF remains to be clarified.