

Growth pattern and function of bone marrow fibroblasts from normal and acute lymphoblastic leukemia patients

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Studies were conducted on cultures of adherent cells derived from bone marrow of normal (N-BMF) and ALL (ALL-BMF) children. Quiescent cultures of both types of cells are differentially stimulated to synthesize DNA by serum. A 31-fold increase was observed in N-BMF, while in ALL-BMF, serum stimulates DNA synthesis only up to 7 times. Hydrocortisone (10^{-8} M) inhibited up to 50% the effect of serum on DNA synthesis in N-BMF and had no effect in ALL-BMF. Glucocorticoid receptors, already described in N-BMF, are either absent or present in low amounts in ALL-BMF. These results indicate that stromal cells from normal and ALL bone marrow differ both in growth pattern and function.