INTRODUCTION AND AIM OF THE WORK

INTRODUCTION AND AIM OF THE WORK

Connective tissue diseases including (SLE, RA and scleroderma) are an autoimmune diseases with no definite etiology, these diseases are multisystemic, affect many organs. Sister chromatid exchange is known to result from reciprocal DNA interchange in homologous loci of sister chromatid in replication process and it occurs spontaneously at certain rates in all cells ***(Dean and Danford, 1984).***

SCE was used to detect DNA damage or genetic impairment ***(Gebhart, 1981).***

Altman (1977) reported defect of DNA repair in lymphocytes of patient with SLE, impairment of DNA may be induced by ultraviolet light and methyl nitrosourea (MNU).

Blood lymphocytes of patient with scleroderma show more chromosomal aberration (CA) than those of healthy individuals ***(Emerit and Marteau, 1980).***

Rantapaa and Nordenson (1996) have observed that chromosomal aberration (CA) and sister chromatid exchange (SCE) significantly increased in RA patients.

Aim of the work:

1- Detection of the frequencies of SCE in lymphocytes of patients with connective tissue diseases (SLE, RA and scleroderma).
2- Try to find out correlation between SCE frequency and disease activity.