

## **Some Observations on Spontaneous Sister Chromatid Exchange Frequencies and Cell Cycle Progression in Stimulated Lymphocytes of Patients With Different Malignancies**

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**KEYWORDS** Human lymphocytes; Malignancies; Spontaneous SCE rates; Cell cycle progression

**ABSTRACT** Total 23 patients with different malignancies viz. Ca. Lung (5), Ca. Uterine & Cervix (5), Ca. Head & Neck (5), Sarcomas (5) and Malignant Melanoma (3); were studied for spontaneous sister chromatid exchange frequencies (SCE) as well as cell cycle progression. All blood samples were collected prior to chemotherapy and/or radiotherapy to exclude the influence of these therapies, if any, on SCEs. Totally 15 healthy, age and sex matched individuals and belonging to the same socio-economic status, but no direct relatives of the patients were studied simultaneously as controls. The SCE rates, when compared to controls ( $4.00 \pm 0.39$ ) were found to be significantly high for patients with Ca. lung ( $9.42 \pm 1.20$ ), malignant melanoma ( $8.14 \pm 0.21$ ), Ca. head & neck ( $6.85 \pm 0.89$ ) as well as sarcomas ( $6.29 \pm 0.79$ ). However, no detectable difference was observed in the SCE rate for patients with Ca. uterine & cervix ( $5.02 \pm 0.88$ ). Cell cycle proliferation and thereby replicative index was significantly elevated in patients with carcinoma of head & neck as well as malignant melanoma. On the other hand, rest of the patients showed no much variation in cell cycle progression when compared to controls.