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## Chromosomal Instability in Peripheral Blood Leucocytes of Oesophageal Cancer Patients

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**KEY WORDS** Peripheral leucocytes; genetic instability; specific chromosomes; oesophageal cancer

**ABSTRACT** Aim of present study was to study the chromosomal instability in peripheral blood leucocytes of oesophageal cancer patients. Purpose of this study was to assess whether aberrations in leucocytes occur at random or involve specific chromosomes. Blood samples of 10 oesophageal cancer patients (preoperative) and 10 age and sex matched controls were collected from various hospitals at Amritsar (Punjab, India). Leucocytes were cultured using standard leucocyte culturing technique and metaphases were analysed for chromosomal aberrations. A variety of chromosomal aberrations including chromosome gaps, chromatid gaps, acentric fragments, acrocentric associations, terminal deletion, hypodiploidy, polyploidy, double minutes, Robertsonian translocation i.e. t (D&G), loss of chromosome 2, 7q-, 10, 11, 12, 15, 17, 19, 21, Y, and gain of 3, 4, 10, 19, and 22 chromosome were seen in peripheral blood leucocytes of oesophageal cancer patients. No such aberrations were seen in controls samples. High frequency of aberrations involving specific chromosomes in peripheral blood leucocytes similar to those reported in tumor tissue indicates that chromosomal instability is probably constitutional in nature and participates in cancer predisposition.

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