

The study aims to use the cytogenetic analysis as biomarkers in peripheral blood lymphocytes of health labors professionally exposed to Ionizing Radiation at Al-Amal Cancer Hospital in Baghdad using three genetic endpoints. By detecting temporary DNA damage and / or repair activity, it reflects the simultaneous exposure and actual levels of DNA damage present in leukocytes in the peripheral blood of radiological laborers. This study conducted on Thirty Iraqi radiation Labors were exposed to a low dose of ionizing radiation, included twelve females and eighteen males between the ages of (22–57) years, non-smokers , non- alcoholic , in addition to Twenty Healthy individuals were collected apparently randomly from population living Baghdad , included seven females and thirteen males , aged (19 – 55) years which are non-smokers , non- alcoholic as control group.