

# Effects of A and B ultraviolet irradiation on human lymphocytes Efectos de la radiación ultravioleta A y B sobre linfocitos humanos.

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Over the last decade, a greater decrease in the ozone level has occurred in the Southern Hemisphere. For each 1% decrease in this level, a 2% increase in biologically effective radiation occurs. Aiming to evaluate the biological effect produced by UV radiation, 10 blood samples coming from patients consulting for reproductive problems, were irradiated with visible and ultraviolet radiation A (treatment A) and visible and ultraviolet radiation B (treatment B) during 1 to 5 minutes. This dosage is comparable to the radiation received in Santiago at 13:00 h in a summer day. After irradiation, lymphocytes were cultured during 72 h and the number of altered metaphases was quantified. There was a significant increase in chromosomal alterations with treatment A (2.61, 2.43, 4.53 and 3.53 at 1, 2, 3 and 5 min respectively) and treatment B (3.06, 3.81, 3.3, 5.51, at 1, 2, 3 and 5 min respectively) compared with non-irradiated controls (0.8 and 0.72). There was a reduction in mitotic indices in