

论著

河南“4.26”60Co源辐射事故受照者细胞遗传学随访观察

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收稿日期 2006-10-8 修回日期 2006-12-13 网络版发布日期:

摘要 背景与目的: 对河南“4.26”60Co源辐射事故受照者进行细胞遗传学随访观察。材料与方法: 利用微量全血培养法制备外周血淋巴细胞染色体和胞质分裂阻断(CB)微核标本, 对河南新乡60Co源辐射事故6例受照者照后1~2年的染色体畸变和CB微核进行分析。结果: 受照1~2年后受照者的染色体畸变率已明显下降, 受照1年后非稳定性染色体畸变仍占有较大比例(40%~60%); 受照2年后稳定性染色体畸变高于非稳定性染色体畸变, 但差异无统计学意义(P>0.05, 1例受照者除外, 其P<0.01); 受照1~2年后染色体总畸变率与受照剂量间仍有明显的剂量效应关系(r<0.936, P均<0.01); 而受照1~2年后多数受照者的CB微核率已降到正常参考值范围。结论: 随着照后时间推移, 非稳定性染色体畸变逐渐丢失, 稳定性染色体畸变仍保持在较高水平; 微核分析不适用于大剂量受照个体远后遗传效应的评价。

关键词 [60Co源辐射事故](#); [染色体畸变](#); [CB微核](#); [随访观察](#)

Follow up of the Cytogenetics on 6 Victims Exposed to 60Co Radiation Accident in Henan

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Abstract BACKGROUND & AIM: Follow up cytogenetic tests was performed on the 6 victims exposed to 60Co radiation accident in Henan. MATERIALS AND METHODS: The samples of chromosome and CB micronucleus were prepared by using cultured whole blood, and analysis of chromosomal aberrations and CB micronuclei were made in the 6 victims exposed to 60Co radiation accident occurred in Xinxiang of Henan 1_2 years after irradiation. RESULTS: The frequencies of chromosomal aberrations in the victims had obviously declined in 1_2 years after irradiation. The proportion of unstable chromosomal aberration was higher in 1 year, and the rate of stable chromosomal aberrations was greater than that of unstable 2 year after irradiation. Frequencies of CB micronuclei in the victims had mostly declined into the background range in 1_2 years after irradiation. CONCLUSION: The results suggested that unstable chromosomal aberrations had gradually resolved, and stable chromosomal aberrations was still the majority as time progressed after irradiation. Late genetic effects of individuals exposed to high_dose irradiation can not be evaluated by analysis of CB micronucleus.

Keywords [60Co radiation accident](#); [chromosomal aberration](#); [CB micronucleus](#); [follow up observation](#)

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