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| 제 목 | 소각장 근로자들의 림프구 및 정자의 DNA손상 INCREASED DNA DAMAGE OF LYMPHOCYTES AND SPERM IN WASTE INCINERATION WORKERS | | | | |
| 저 자 및 소 속 | 오은하1), 이은일1),2),3), 김양희1), 이주현1),3), 임용철1), 설동근1),4) 1)고려대학교 유전체 및 단백질체 환경독성과학센터, 2)고려대학교 의과대학 예방의학교실, 3) 고려대학교 보건학과, 4) 고려대학교 대학원 Oh E1), Lee E1),2),3), , Kim Y1), Lee J1),3), Lim Y1), Sul D1),4) 1)Medical Research Center for Environmental Toxico-Genomics and Proteomics, 2)Department of Preventive Medicine, 3)Department of Public Health, 4)Graduate School, Korea University, Seoul, Korea | | | | |
| 분 야 | 환경의학 [독성물질-화학적 및 물리적 인자] | 발 표 자 | | 발 표 형 식 | 포스터 |
| <p>Waste incineration workers were exposed to polyaromatic hydrocarbons(PAHs) and dioxin.</p> <p>We investigated six male waste incineration workers to evaluate DNA damage of sperm and blood lymphocytes. They were exposed to dioxin from 0.299 to 90.45 ng-TEQ/Sm³ at the same incineration company. They were also exposed to PAH and their urinary 1-OH-pyrene (0.42 vs. 0.04 μMol/mol Cr) and 2-naphthol (7.21 vs 1.59 μMol/mol Cr) were higher than control subjects (N=26). The count, motility and DNA damage of sperms among six workers were compared to eight healthy subjects.</p> <p>The sperm count (42.9× 106/ml±17.97 vs. 56.1× 106/ml±44.51) and motility of sperm (57.81%± 3.35 vs. 69.7%±7.44) in workers were lower than control healthy subjects with borderline significance (p<0.1). The tail moment of sperm (1.40±0.08 vs. 1.26±0.03) was higher than control healthy subjects with statistical significance (p<0.001). The tail moment of T-lymphocytes and B-lymphocytes in workers were compared to control subjects (N=26). The tail moment of T-lymphocytes (1.47±0.12 vs. 1.42±0.32) in workers was higher than control subjects with borderline statistical significance (p<0.1), and that of B-lymphocytes (2.21±0.18 vs. 1.37±0.27) with statistical significance (p<0.05).</p> <p>In present study, we found increased DNA damage of both sperms and blood lymphocytes in waste incineration workers.</p> | | | | | |