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Organochlorine pesticides and polychlorinated biphenyls(PCBs) are ubiquitously distributed in the environment and belong to a group of contaminants whose occurrence in the environment is of a serious concern to environmental chemists and toxicologists. This is due to their resistance to degradation in the environment as well as their potential toxicity. The occurrence of organochlorine pesticides and PCBs in the environment and subsequently in parts of the food chain, resulting in the intake of these compounds by man and animal. The measure of the levels of organochlorine pesticides or polychlorinated biphenyls (PCBs) in tissues or blood of human populations are good markers in determining the extent of exposure and in the evaluating the hazards. So, most countries have conducted initial monitoring programs to determine organochlorine pesticides and PCBs in human tissues. But few report has been presented in Korea. In this study, organochlorine pesticides( $\alpha$ -BHC,  $\beta$ -BHC,  $\gamma$ -BHC,  $\delta$ -BHC, p,p'-DDT, p,p'-DDD, p,p'-DDE, endrin, dieldrin, aldrin) and marker PCBs(PCB nos. 28, 52, 101, 118, 138, 153, 180) were determined in human blood, adipose tissue and liver tissues collected at autopsy of 10 men and 10 women, by using GC/ECD. From the results, the significant differences in the levels of organochlorine pesticides or PCBs between sexes, districts where they had lived and ages were also investigated.

[PA3-14] [ 10/18/2001 (Thr) 14:00 - 17:00 / Hall D ]

### **Effects of bisphenol A on T cell and B cell population and cytokine production of splenocytes.**

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Bisphenol A is a monomer used in the manufacturing epoxy resins and polycarbonates, and may be released into the environment through its use and handling. This study was designed to investigate the effects of BPA on the T cell population and B cell, and production of IL-4 and IFN- $\gamma$ . Female ICR mice were administered to various concentrations(100, 500, 1000 mg/kg/day) of BPA for 30 days. After 2 days expose, mice were sacrificed.

Helper T cell population in spleen from exposed to BPA was decreased with increase in B cell population. The cytokines production of Con A-stimulated spleen cell from the BPA exposed mice was decreased. When normal splenocytes were activated with Con A in the presence ( 1, 10, 25, 50, and 100  $\mu$ M) or absence of BPA, BPA suppressed cytokines production at 50, 100  $\mu$ M. These results revealed immunotoxicity of BPA.

[PA3-15] [ 10/18/2001 (Thr) 14:00 - 17:00 / Hall D ]

### **Bisphenol A-metabolites induces Oxidative DNA damage and reduced cell proliferation**

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Bisphenol A, a monomer of polycarbonate and epoxy resins, has been detected in canned food and human saliva. BPA stimulate cell proliferation and induces expression of estrogen-response genes in vitro. This report considers the hypothesis that BPA is converted in vivo to hydroxylated metabolites with enhanced estrogenicity and cytotoxicity. The purpose of the this study was to evaluate the cytotoxicity