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Rapid Screening Method for Pesticides as the Cause Substances of Toxicosis by TLC

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We investigated the rapid and simple screening method for the identification of pesticides in the case of toxicosis in general hospital using thin layer chromatography (TLC). We selected 46 common pesticides having many toxications. They were analyzed by fluorescent silica gel TLC with four developing solvent systems and three detection methods. This method enabled us to identify pesticides as the cause substances of toxicosis rapidly from the serum and returned gastoric lavege solution from patients.

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Bio-antimutagen Detection Method with Wing Spot Test by *Drosophila melanogaster*.

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Application of wing spot test with *Drosophila melanogaster* for bio-antimutagen detection was investigated. Firstly, four mutagen exposure methods were compared with Trp-P-2 or IQ, and cellulose powder method was recognized as the most effective. Then, cobaltous chloride, gallic acid and cinnamaldehyde which are known as bio-antimutagens were tested and this method was found very useful as a second screening method for bio-antimutagen between bacterial tests and cancer depression tests with mammals.

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Enhancement of the Mutagenicity of Amino Acid Pyrolysates by Phthalate Esters

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The ability of phthalic acid, phthalic acid anhydride, and various phthalate esters to enhance the mutagenicity of many amino acid pyrolysates was observed with the Ames test (*Salmonella typhimurium* TA98), but not the SOS Chromotest. Phthalate enhancement of the mutageni-city of 4-nitroquinoline-1-oxide, 2-nitrofluorene, and benzo[a]pyrene was not observed with either test. The mutagenicity-enhancing ability may be related to the induction of enzymes such as P450IIB, that metabolize amino acid pyrolysates.