

toxicants are more occurred than women's. And most common intoxicated age group was 40s. These trends of the DA cases and the MDT in Central Area of Korea, can help the forensic toxicologists and government to plan the prevention policy of the DA cases and MDT as well as its future estimation.

[PA3-7] [ 10/18/2002 (Fri) 09:30 - 12:30 / Hall C ]

Analysis of the chemical burn-inducing components from the extraction of herb drug-mixed-medicine

Lee JuSeon<sup>o</sup>, Lim MieAe, Choi HyeYoung, Eo SangHeui, Lee HanSun, Park YooSin

국립과학수사연구소 법과학부 약독물과

Psoralen(7H-Furo[3,2-g][1]benzopyran-7-one) and angelicin(2-Oxo-[2H]-furo[2,3-h]-1-benzopyran) are angular furocoumarin with diverse photobiological effects. They are major components of *Psoralea corylifolia* L. (破古紙). *Psoralea corylifolia* L. is used for a tonic and nursing one's energy. It can be also used for loss of virility, vitiligo, a skin disease, etc.. But a well known and often appreciated 'side effects' of psoralens is the hyperpigmentation caused by this treatment.

A women who used the herbal drug-mixed-medicine named 'sobaeksu' to treat her vitiligo made a complaint against the oriental medical doctor. She complained that her skin got burned to 2nd degree by the liquid. 'sobaeksu' through a medical certificate.

So we analyzed the components of that liquid with gas chromatography and gas chromatography/mass spectrometry. It has 57.3% ethyl alcohol and two kinds of psoralens. Psoralens were psoralen and angelicin and each one of their contained quantity was 0.128mg/ml and 0.123mg/ml.

[PA3-8] [ 10/18/2002 (Fri) 09:30 - 12:30 / Hall C ]

Analysis of bufotoxins in toad venom and toad eggs

Lim MieAe<sup>o</sup>, Lee JuSeon, Eo SangHeui, Choi HyeYoung, Jeong JinIl, Lee HanSun Park YooSin

국립과학수사연구소 법과학부 약독물과

Chan Su, the dried toad venom, has been used in Asian countries as the traditional medicine for the purpose of the alleviation of pain, cardiotoxic diuresis, hemostasis and et al.. However, Chan Su is the special attention-needed medication because it is known to contain the highly toxic compounds such as bufotenine, an hallucinogen and aphrodisiac, and a series of bufadienolides, cardiotoxic steroids that produce physiological symptoms similar to digoxin.

Several cases of poisoning from the venom of toad were reported in Taiwan and the United States and one case of human poisoning from toad was also found in Korea in 1994. Severe toxicity or death has occurred after mouthing toads and following the ingestion of the entire toad, toad soup, or toad eggs.

The death of a 48-year old man ingested toad eggs has occurred this march. The toad eggs, the entire toads which had laid the eggs, and the fried eggs as well as the biological fluids given through autopsy were collected and analysed.

Bufotenine, one of the bufotoxins, was identified through GC/MS and the cardiotoxic bufadienolides, namely bufalin, cinobufagin and resibufogenin, were also detected through HPLC analysis in the toad venom. Cinobufagin was also identified in the toad eggs. However, no bufotoxins and bufadienolides were detected in the fried eggs and the biological fluids of the deceased.

[PA3-9] [ 10/18/2002 (Fri) 09:30 - 12:30 / Hall C ]

Osteoanagenesis Effect Of Hwang-Chil, a natural resources of Korea

Kim Jin Hee<sup>o</sup>, Baek Wun Bong, Shim Kyoo Jung, Choung Se Young

College of Pharmacy, Kyung Hee University, Seoul, Korea