A STATISTICAL SURVEY OF CLINICAL CASES OF POISONING BY AGRICULTURAL PESTICIDE IN JAPAN AND CHINA

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In Toyama we started the project to gather the clinical cases of poisoning by agricultural pesticides from 1980. The method of survey is sending the investigation papers to all physicians, surgeons, children’s doctors eye doctors and dermatologists in Toyama Prefecture. numbers are about 650. From 1990 in Henan (China) using the same method Chinese doctors started project of the survey of pesticides poisoning.

In this report we compare the Toyama’s 90 cases (from 1988 to 1992) with Chinese 563 cases (from 1990 to 1993). Chinese studying area is showed by Fig 1. and Toyama’s by Fig 2. The outlines of the surveying areas is showed by table1. Chinese total area is about 1,281 km², Toyama’s about 4,253 km². Chinese population is 891,000, Toyama’s 1,211,000. Chinese population of farmer’s house is 800,000, Toyama’s 230,000.

In Toyama average of annual poisoning is 18. Recovery of investigation papers is about 70%. By this recovery we count backward the real poisoning cases, that is about 25.7. From this 25.7 and population, we tried to estimated the poisoning cases by agricultural chemicals in Japan. The result of cases is about 2.900, or 2.3 per 100,000 population. By the same estimation Chinese incident is about 460,000 or 40.2 per 100,000 population.

By cause, in Toyama the rate of during spraying is 47.8%, suicide 44.4%, misused 7.8%, in China during spraying 67.3%, suicide 26.8%, misused 4.6%. contamination 0.4%, residue 0.9%. In China the incidence of poisoning in spraying is very high. In China I had some chances of looking the spraying style, all sprayers put on no mask, and some cases the upper half of bad were styles are too.

In China to prevent of the poisoning from agricultural chemicals, for farmer poisoning education is very important. In Toyama the death rate of poisoning from agricultural chemicals is 30.0%, in China 2.1%. The rate of Japanese death rate of poisoning is very higher than China’s. In Japan the paraquat which is herbicide, is permitted to use. There is no way to cure for poisoning from this paraquat is too danger, so in Japan the paraquat must be prohibited by low.
Table 1 Summary of surveying areas

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Table 2 Annual cases of poisoning (by cause)

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### Table 5 Monthly incidence of poisoning patients

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### Table 8: Poisoning from agricultural chemicals in Toyama (by type)

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(deaths/cases)
Fig. 1 Studying Area in China

Fig. 2 Studying Area in Japan