

LETTER TO EDITOR

The Achievements of the Poison Control Center of Bach Mai Hospital, Vietnam

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Last editorial of the Asia Pacific Journal of Medical Toxicology addressed the important role of poison control centers in the improvement of public health (1). In Vietnam, poison control center (PCC) of Bach Mai Hospital has been the only national one for civilians. The establishment and activities of this center can be considered as one of the pioneers in the East Asia.

History and setting (2,4)

The PCC is a division of Bach Mai Hospital, a tertiary general hospital with approximately 2000 beds. The hospital is a public teaching hospital. The department of clinical toxicology or poison treatment center (PTC) was separated from the department of emergency and intensive care of Bach Mai Hospital in 1998. From this treatment center, the PCC of Bach Mai Hospital was established in 2003 and has been working as the only national PCC.

Organization (2,4)

The Bach Mai PCC is directed by 3 physicians who are specialized in critical care medicine and have been working for PTC from its beginning.

Other staff members of the PCC include 7 physicians, 2 bachelors of chemistry, 1 technician, 27 nurses and 3 medical assistants. The PCC has a unit of clinical toxicology with 35 patient beds, toxicology laboratory and poison information unit. In this setting, clinical and scientific measures including management of poisoned patients, toxicology analysis, training and education for healthcare workers in the management and prevention of poisoning, toxicologic research, cooperation with domestic and international agencies regarding the poisonings, public education, providing poison information, treatment and prevention advice and participation in regional and international congresses and associations have been tracked.

Achievements (2,3,5,6)

Training and education: (a) For healthcare workers in Vietnam; teaching toxicology module or training courses on the management of poisonings at graduate and postgraduate levels for physicians, residents, medical students, and nurses at the center and in different regions of Vietnam is in progress (7094 students). Moreover, 46 CME courses were organized in 42 provinces nationwide. (b) For international healthcare workers; training course on the diagnosis and management of acute poisonings for 27 physicians from India in cooperation with World Health Organization was performed.

Clinical activities: Approximately 1700-1800 poisoned patients are annually treated in the center which majority of them includes pesticides, snakebite, hymenoptera evenomation and toxic mushrooms. Treatment protocols and regimens for common and life-threatening poisonings have been developed and brought about great successes, especially with regards to organophosphate poisoning, snakebite, hymenoptera

evenomation and nereistoxin insecticide poisoning.

Research: Most studies have been focused on devising protocols and application of techniques for decontamination, antidote administration and enhanced elimination of poisons including emulsified charcoal, snake antivenoms, gastric lavage with closed circuit, plasma exchange, continuous veno-venous hemofiltration/hemodialysis and charcoal and resin hemoperfusion.

Mortality rate: The PCC has played an important role in the improvement of death rate. The death rate due to poisonings was reduced from 8.5% to 1.9% after the department of clinical toxicology (PTC) was set up in 1998. The mortality was further reduced to 0.37% in 2005 after the establishment of the PCC. The current death rate (2012) is 1.99% primarily contributed by emerging paraquat poisoning.

Organization of charity activities: A large number of severely poisoned patients who were in poor economical status and had treatment costs exceeding the payment competency of the health insurance benefited from these activities.

Toxicology analysis: Analysis of many common poisons of concern have been carried out including pesticides, pharmaceuticals, drugs of abuse, alkaloids with quick tests, thin layer chromatography and high pressure liquid chromatography.

Publications: Nineteen books (in Vietnamese) on toxicology, emergency medicine and intensive care medicine, nursing, accident and injuries prevention (chief author and co-authors) have been published by the PCC, to date.

International cooperation: The PCC successfully hosted the 9th Scientific Congress of Asia Pacific Association of Medical Toxicology at Bach Mai Hospital in 2010 which was attended by 200 delegates from 19 countries.

REFERENCES

1. Afshari R. Empowerment of Medical Toxicology in Asia Pacific Region. *Asia Pac J Med Toxicol* 2013 Jun;2(2):36.
2. Anh NQ. Poison Control Center. In: Bach Mai Hospital – Hundred years of evolution. Hanoi: Publisher of Science and technology; 2011. (In Vietnamese)
3. Hanh TT. System of emergency, intensive care and poison control at Bach Mai hospital. Paper presented at: National conference on training and education on emergency, intensive care and medical toxicology; 2008; Hanoi, Vietnam. (In Vietnamese)
4. Ministry of Health of Vietnam. Establishment of the Poison control center of Bach Mai Hospital. Vietnam: Ministry of Health of Vietnam; 2003. Decision No. 4879/2003/QĐ-BYT. (In Vietnamese)
5. Nguyen NT, Xuan DT, Thu BH, Due P. Education and training program for primary hospital physicians in Vietnam. Pre-congress workshop on training and education for primary physicians. The 7th Scientific Congress of Asia Pacific Association of Medical Toxicology; 2008 Dec 7-10; Chandigarh, India.
6. Thuan LQ, Ngoc ND, Due P. Effectiveness of Continuous Veno-Venous Hemofiltration and Intermittent Hemodialysis in the Treatment of Severe Acute Phenobarbital Poisoning. *Asia Pac J Med Toxicol* 2013 Mar;2(1):10-13.

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