LETTER TO EDITOR

Research Priorities for Medical Toxicology in Low and Middle Income Countries

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In the editorial by Dr. Reza Afshari "What is the best research for low income countries" (1), some important issues have been raised, highly relevant to developing countries. In most developing countries including India, emergency medicine is not well established and clinical toxicology is even further a low priority in view of both research and clinical management. The number of poison control and treatment centers is few and if they exist, they are mainly in metro cities. Moreover, we are faced with lack of required resources for such research.

Dr. Afshari's suggestion about the need for epidemiological studies should be regarded as highly important (1). These studies should be prospective and community-based rather than hospital or poison centre based. Unless we know the pattern of poisonings, it will not be possible to formulate the guidelines for treatment and research as poisonings vary in different countries and in different areas of a country (2). Depending on pattern, the treatment and research guidelines can be devised and scarce resources can be allocated. The acute poisonings in developing countries are very often due to toxic chemicals. This is because there is a lack of control on availability of chemicals as laws do exist but implementation is lacking (2). Although specific antidote is available for majority of them, mortality remains high because treatment is often delayed due to non-availability of proper centres and lack of antidotes. Therefore, it is necessary to train health care professionals and to provide better awareness in general public regarding risks of poisonings. Furthermore, not only resources are lacking, western textbooks or literature is only available for management of poisonings and local guidelines are limited. In high income countries, both knowledge and money are available but poisoned patients are in limited number while in developing countries it is other way round.

We must pay the most careful attention to the role of gastric lavage which due to legal reasons in some countries such as India, it is mandatory (3).

It is also crucial to carefully investigate the venomous snakes where more species are required to be identified and antivenoms should be developed. There is a great need to develop low-priced diagnostic kits and cheaper analytic methods for poisons.

More access to information in developing world and South-South collaboration is a highly welcomed idea. We need a standardized format to record, uniform protocols to manage poisonings and low cost healthcare technologies such as self-inflating bag in saving patients with respiratory arrest following snakebite or OPC poisoning or where short term ventilation is required.

REFERENCES

1. Afshari R. What is the "Best Research" for Low Income Countries? Asia Pac J Med Toxicol 2013 Mar;2(1):1.
2. Murali R, Bhalla A, Singh D, Singh S. Acute pesticide poisoning: 15 years experience of a large North-West Indian hospital. Clin Toxicol (Phila) 2009 Jan;47(1):35-8.
3. Bhardwaj UB, Anand S, Bhalla A, Sharma N, Singh S. Safety of gastric lavage using nasogastric ryle's tube in pesticide poisoning. Health 2011 Jul;3(7):401-5.

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Received 18 March 2013; Accepted 18 June 2013