

Ancient Indian Toxicology at a Glance

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Toxicology is an important branch of medical science. It is occupying an important position in modern medical science as it deals with the different types of poisons, signs and symptoms of poisoning, diagnosis of poisoning, prognosis and treatment.

Poisoning may be suicidal, homicidal or accidental. Whatever may be the manner of exposure, a poison, after coming to the contact with the body either externally or internally causes deleterious effect. A poisoning may end with fatal result. Hence it is important to have extensive knowledge on diagnosis and treatment of poisoning for a physician.

Poisoning is not a new experience of the physicians. Since long past human, animal and bird are suffering from the dreadful effect of these harmful natural substances. Even sometimes artificial poisons were also prepared by mixing some herbal, mineral or animal poisons. It was observed that, the poisons are of strong potency and even can cause cessation of the functions of vital organs immediately after exposure. Therefore, a separate branch of health science (AYURVEDA) was introduced to deal with the patients of poisoning giving the nomenclature "AGADATANTRA" and a specialized module of training was also prescribed for the students of the branch.

Chraka Samhita, Susruta Samhita, Ashtanga Sangraha and Ashtanga Hridaya contain different aspects of poison and poisoning in different sections and chapters. Though there are some difference in description then also the concepts have close similarity.

At the time of description the scholars highlight on different aspects of poison and poisoning. Discussion on some points and aspects of the descriptions are considered to be beneficial for the society.

Origin of poison: Poisons are described to produce during churning of the sea with the aim to get nectar by the gods and the demons. It is imaged as a ferocious demon causing disturbance in the novel creation of the creator "LORD BRAHMA". The appearance and existence of the demon caused unhappiness in the creation. Ultimately the creator made it weak and put in two sources viz. (1) animal and (2) plant and mineral.

Effect of poison: The Ayurvedic scholars unanimously say that all poisons are very potent and harmful. Most of them are immediately fatal. They have ten strong properties with which destruction of the vitality (OJA) and the end of life of the victim is caused. Immediately after entry they spread in the body and start harm each and every component.

How to treat a patient of poisoning?: A toxicologist is advised to follow 24 treatment procedures to treat a patient. There must be expertness and experience of the toxicologist to choose the beneficial and applicable procedures according to the condition of the patient, severity of signs and symptoms, tolerance of the patient, type of the poison etc. Protection of the heart (Heart and brain) is said to be the prime duty of the attending toxicologist.

Concept of artificial and weak poison: The scope of exposure to artificial poisons (prepared by mixing two or more poisons) and weak poisons (reduced the potency due to exposure to air, water, fire, anti-poisonous drugs, storage for a long time etc.) is advised to note by the toxicologist. Training and experience on proper diagnosis and treatment of these conditions is stressed with priority.

Poisoning from living objects: A group of living objects as source of poison is also described in the Ayurvedic classics. During the description snakes have got more importance. Scorpion, insect, reptiles, mosquito, fly, fish, frog, monkey, jackal, fox, dog etc. are also discussed as some important sources of poison and described vividly with special reference to signs and symptoms and treatment of the conditions. Snake venom is described as the most potent one which is very difficult to treat.

Concept of environmental pollution: Interesting description on air pollution, water pollution and soil pollution is another beauty of Ayurvedic Toxicology. Induced pollution of these three important factors by the enemy is also mentioned by Susruta with the purification procedures.

Food poisoning: The Ayurvedic scholars mention food as the commonest media to give poison by the enemy. Interesting and beneficial description on signs and symptoms of food poisoning along with treatment with special reference to time since exposure is very informative.

About the training, expertness and duty of the toxicologist: A Toxicologist is advised to acquire optimum expertness from teachers on both theoretical and practical application of diagnostic and treatment procedures. Expertness, alertness, dedication, affection to the patients are some important qualities of the Toxicologists mentioned by the Ayurvedic scholars.

A detail study, scientific evaluation and application of the Ayurvedic principles may be proved to be the way for exploration of new field in Toxicology.

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