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REVIEW ON -PHARMACOVIGILANCE OF VISHDRAVYA

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Abstract-

Visha and upvisha are considered highly valuable on account of their quick effectiveness even in smaller doses. At the same time, they can be very fatal to human beings if used without proper care or in higher doses. These drugs can likely have toxic effect over body if used internally. Pharmacovigilance is a branch that deals with adverse drug reaction, undesired effect of drug, awareness about drug safety, proper doses of drug. Pharmacovigilance in case of visha and upvisha is to remove or lessen the undesired toxic effect and to make the material suitable for use.

key words- *Visha Dravyas*, *Adverse Drug Reactions,* pharmacovigilance

Introduction-

Practise of Indian system of medicine is considered to be safest form of therapy, however incidence of ADR owing to consumption of traditional medicine give rise to necessitates the introduction of Pharmacovigilance of herbal drug. Pharmacovigilance is a science developed as an attempt to reduce the risk of drug related harms, ultimately focusing on patients' safety. In Ayurvedic classis several poisonous drugs are enumerated and explained with its mandatory purification method. The concept of shodhana in Ayurveda not only covers the process of purification and detoxification of physical and chemical impurities but also minimization of side effect, exa-*shodhana of vatsanabha in gomutra*[1].

Charaka explains "even a strong poison can become an excellent medicine if administered properly; on the other hand, even the most useful drug can act as a poison if handled c drug can act as a poison if handled carelessly"[2].

Schedule-E(1) of Drugs & Cosmetic Act 1940 has enlisted 13 herbal, 1 animal origin and 7 mineral origin poisonous substances under ASU Systems of Medicine (2010 amendment). Therapeutic application of *Visha-Upavisha Dravyas* (toxic medicinal plants) is extensive in Ayurveda. Formulations containing *Visha-Upavisha Dravyas* (toxic medicinal plants) have broad clinical significance in present day to day practice. In order to ascertain the formulations containing *Visha-Upavisha Dravyas* (toxic medicinal plants); search of literature was carried out in authoritative books of Ayurveda mentioned in Schedule I of Drugs and Cosmetic act1940[3].

Vast number of formulations containing toxic medicinal plants (shown in Table 1) In fact, study of poisonous drugs and adverse drug reactions (ADR) monitoring is crucial in toxicological department. Due to numerous formulations and also due to diversity in drug choice, it is extremely difficult to ascertain fixed safety standards for herbal preparations The classical references about poisonous compounds are scattered and there is difference of opinion about pharmaceutical processing, indications and dosage of these drugs.

Detailed study of toxic drugs i.e. pharmacovigilance from Ayurveda point of view will be a basic requirement towards drug safety. This will guide towards the prominent areas of research and thereby helpful in establishing the standards.

In addition, formulations containing metal/mineral origin substances are innumerous and with broad scope in therapeutics.

Table 1: Showing the number of formulations containing *Visha-Upavisha Dravyas* (toxic medicinal plants) as one of the ingredients

Drug name	Number of formulation in AFI (4)	Number of formulation in bhashajya Ratnavali (5)
Vatsanabha (Aconitum ferox)	38	130
Kupeelu (Strychnous nuxvomica)	05	17
Ahiphena (Papavarum somniferum)	06	22
Jayapala (Croton tiglium)	05	60
Dhatura (Datura metal)	17	44
Bhanga (Cannabis sativa)	11	13
Gunja (Abrus precatorius)	02	07

hallataka (Semicarpus *anacardium)*	15	45
Arka (Calotropis procera)	19	21
Snuhi (Euphorbia nerilifolia)	08	45
Langali (Gloriosa superba)	04	16
Karveer(Neriumindicum indicum linn)	04	14
AFI - Ayurvedic Formulary of India		

Standardization of processing technique and adoption of standardized guidelines in manufacturing the drugs is essential to avoid the ADR's. From pharmacological point of view during preparation of the medicines, if the raw drugs are not taken in the proper quantity then desired action on body may not be obtained or the formulation may show unwanted actions. Adverse drug reactions (ADR) are also results of improper dose of drugs and repeated/large doses. It is the dose by which *Visha* (poison) becomes *Amruta* (nector) and *Ausadha*(medicine) becomes *Visha* (poison). Along with dosage, additive drug effect also needs to be considered while prescribing multiple formulation. Eliciting drug history in patients with pre-existing kidney or liver disorders may reduce magnitude of complications that may arise due to overdosing of formulations containing toxic ingredients. Specific *Anupana* (adjuvant) as explained in Ayurveda classics have definite role in drug efficacy and safety. *Jayapala* (*Croton tiglium*) being the best example to show its purgative effect enhanced and suppressed by intake of cold water and hot water respectively[6].

Drug specific diet and regimen explained in Ayurveda, enlightens us on the care adopted in the system to prevent ADRs. One such example being indication of *Ghrutha*, *Ksheera* and *Shashtika Shali* use during the administration of *Bhallathaka* (*Semicarpus anacardium*) owing to its extreme *Teekshna, Ushna Gunas* [7].It clearly demonstrates lack of awareness in patient community about Ayurvedic medicines and ill effects of over the counter sale. Patient education on appropriate intake of medication also avoids the medication errors and thereby reduces the ADR

CONCLUSION-

Drug safety is achievable by the three tiers such as detection, monitoring and prevention of adverse events. Pharmacovigilance has a pivotal role in the preventive tier of drug safety. Creating comprehensive, unbiased and easily accessible information on poisonous drugs used in Ayurveda therapeutics can build awareness among Ayurvedic physicians, drug manufacturers and patients.

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