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# Study of poisonous plants of Sidhi District of (M. P.) India

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**Abstract**

The study of poisonous plants to various families of angiosperms from Sidhi district of Madhya Pradesh state was undertaken during 2020-2021. The present paper deals with the poisonous part and identification in these plants. Based on the available clinical symptoms and the traditional information gathered from the local people about angiospermic plants belonging to different angiospermic families have been identified and recorded as poisonous plants.

Human being started to know about nature centuries ago and depended on them to fulfill their needs. They used plant for various purposes. Its not only provided cloth, houses. But these also used for medicinal purpose. Ancient people used to extract medicines from plants in various ways and used it in the treatment of many diseases. But some plants are poisonous for human as well as animals and they are poisonous to that extent that causes death. These plants are capable to evoke a toxic response or death.

Geographically Sidhi is one of the north estern districts of Madhya Pradesh state having shared with Uttar Pradesh. It includes 4 talukas. Major part of the district is occupied by evergreen, subtropical and deciduous type of forest, and is blessed with the diversity of plants belonging to various groups.

The study was undertaken during 2020-21 in various part of the district. The study was intended to collect the information and identification of various poisonous plant from the different talukas of the Sidhi district. Efforts have been made to gather the relevant information from the villagers about various plants of the locality. Preference was given to the old aged people for the collection of specific information. The intoxicant incidences among the children were also studied from different daily news papers. The collected information was cross checked with available and earlier published literature[1-5]. The specimen of the poisonous plants were preserved in the form of herbarium. Finally, all the properly identified plants were alphabetically arranged in accordance with their botanical names and the information was tabulated along with the information about poisonous parts.

In the present study in all 16 species of poisonous plants belonging 11 families have

The list of identified poisonous plants along with their family, local name, poisonous parts from Sidhi district of (M.P.)

| S. No. | Botanical Name | Local Name | Name of Family | Poisonous part |
|---|---|---|---|---|
| 01 | *Abrus precatorius* | Ghunchi, Gunja | Fabaceae | Seeds |
| 02 | *Agaricus bisporus* (J.E. Lang) Imbach | Mushroom | Agariceae | Fruiting body |
| 03 | *Amorphophallus commutatus* L. | Jangali Kanda | Araceae | Corm |
| 04 | *Amorphophallus paeoniifolius* (Dennst.) Nicolson | Suran | Areceace | Leaves,corm |
| 05 | *Cannabis sativa* L. | Ganja | Cannabaceae | Leaves,seed |
| 06 | *Cascabela thevetia* (L.) Lippold. | Kaner Yellow | Apocynaceae | Roots, leaves, seeds, flower |
| 07 | *Citrullus colocynthis* (L.) Schrad. | Indrayan | Cucurbitaceae | Fruit,root and leaf |
| 08 | *Croton tiglium* L. | Jamalgota | Euphorbiaceae | Seeds, leaves and all part |
| 09 | *Datura stramonium* L. | Dhatura | Solanaceae | Seeds, flower |
| 10 | *Ipomea carnea* Jacq. | Besharam | Convolvulaceae | Leaves,seeds |
| 11 | *Jatropha curcas* | Chandrajyoti | Euphorbiaceae | seeds |
| 12 | *Moringa oliefera* Lam. | Munga | Moringaceae | Leaves and roots |
| 13 | *Mucuna pruriens* (L.) DC | Kemach | fabaceae | Fruit and seeds |
| 14 | *Nerium oleander* L. | Kaner Red | Apocynaceae | Roots, leaves, seeds and flowers |
| 15 | *Parthenium hysterophorus* L. | Gajar grass | Asteraceae | seeds |
| 16 | *Ricinus communis* L. | Arand | Euphorbiaceae | Seeds and root |

been identified and recorded from Sidhi district. Highest number of different poisonous species recorded were from family Fabaceae, followed by Euphorbiaceae. So far as the toxic action is concern, 10 plants were found to be responsible for skin irritation and inflammation. Gastrointestinal irritation was caused by 9 plant species, while 9 plant species were identified causing diarrhoea. Vomiting, hallucination, cardiac arrest, nerve paralysis, abortifacient, headache, muscular cramps, eye's injury and respiratory arrest were the other prominent problems caused by some of the poisonous plant species recorded in this survey. The poisonous parts of majority of plants identified were latex, fruits, seeds, corm, bulb and leaves. External injuries after contact with the plants was generally found to be caused by stinging hairs and the variety of types of latex exuded, from calcium oxalate crystals and latex present in corms and tubers of some of the plants surveyed. Different poisonous plants exhibited varied range of toxicity. Eight plants, out of total identified poisonous plants were found to be highly toxic and have potential to cause the death of different animals including man. Minor toxicity with observable clinical symptoms could be attributed to 06 plants, while remaining

10 were observed to be responsible for causing dermatitis. Some of the plants enlisted and identified as poisonous plants are reported to be harmful to cattle.

Secondary metabolites, particularly alkaloids and cardiac glycosidase synthesized in the plan are mainly responsible for toxicity in plants. It is suggested that the people living in this area to keep their children away from these plants and also educate the others about the bad consequences of eating or touching parts of these plants. Many incidences of children suffering from various health related problems and even their death, has been that published in different journals Paper has been thoroughly analyzed and it was found most of the poisonous properties were found to be associated with seeds of 'Chandrajyoti' (*Jatropha curcas*) plants. The proper identification of edible parts of the entire plants is essential to avoid the accidental poisoning caused by various plants.

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