Poisonous and Medicinal Properties of Nerium oleander

Dr. Ela Tiwari

Principal

Govt. Girls P. G. College of Excellence. Sagar

Abstract -

Nerium is a poisonous plant which has medicinal properties. - Nerium oleander, an ornamental shrub grown in gardens for its flowers its common names are Rosebay, Ceylon Roseand in Hindi it is canner. Its toxic principles are cardiac glycosides, oleagenine, oleasides, saponins. It is used to treat hemorrhoids, ulcers and leprosy. The leaves and flowers are cardiotonic, diaphoretic, diuretic, emetic, expectorant and sternutatory. Leaves are used in the treatment of scabies and to reduce swellings. It can cause dry mouth, nausea, vomiting, abdominal cramps, confusion, dizziness and cardiac disturbances.

Key words-Nerium, poisonous and medicinal properties, nerine, oleagenine.

Introduction -

Nerium is a poisonous plant which has medicinal properties also.It is an ornamental shrub grown in gardens for its flowers, its commonnames are Rosebay,CeylonRose and in Hindi it is caner.

It is either native or naturalized to a broad area worldwide. It is planted in many subtropical and tropical areas of the world. Red flowers of Nerium are offered to Goddess Jagadambika in Hindu mythology. It has cardioactive glycosides, neriin, karabin, odorin, ursolic acid are. It is used in treatment of malaria, dysmenorrheal and abortifacient, leprosy, skin diseases, scabies and to reduce swellings. It causes irritation in content on skin or eyes.

Uses of Oleander -

Oleander has been used in the treatment of cardiac illness, asthma, diabetes mellitus, corns, scabies, cancer, and epilepsy. However, in none of these conditions is there good evidence for use.

Taxonomy -

A poisonous Eurasian Large multi-stemmed evergreen shrub (Nerium oleander Blanco.) having stiff, dark green, narrow, hairless leaves. They are usually arranged in pairs and whorls of three, narrow lanceolate. All parts of the plant contain watery latex. Showy flowers are clustered at the ends of the branches. They can be dark red, pink or white and "single" with a deeply 5-lobed fringed corolla round the central corolla tube. They are often, but not always, sweet-scented. Fruits are long slender, 2-lobed seedpods or follicles.

Chemical constituents -Itcontains several cardenolides or cardiac glycosides such as oleandrin and adigoside, folinerin, oleandroside, nerioside and digitoxigenin, oleandrigenin, rosagenin (Zibbu, 2010).

Toxicology- Medicinal and Toxic/ Poisonous Properties -

Medicinal properties - It is used in traditional medicine to treat hemorrhoids, ulcers, leprosy. The leaves and the flowers are cardiotonic, diaphoretic, diuretic, emetic, expectorant and sternutatory. A decoction of the leaves has been applied externally in the treatment of scabies, and to reduce swellings. Root is beaten into a paste with water and applied to chancres and ulcers on the penis. Oil prepared from the root bark is used

in the treatment of leprosy and skin diseases of a scaly nature. The whole plant is said to have anticancer properties.

Toxic/ poisonous properties - Oleander is extremely toxic. Major toxicity includes disturbances in heart rhythm and death. Other signs of toxicity include pain in the oral cavity, nausea, emesis, abdominal pain, cramping, and diarrhea.Ingesting oleander can cause dry mouth, nausea, vomiting, abdominal cramps, confusion, dizziness, and cardiac disturbances which can include dysrhythmias, a decrease in blood pressure, slowed pulse, irregular heartbeat, dilation of pupils, bloody diarrhea, drowsiness, cardiac arrhythmia and may be fatal. Common oleander has been used as rat poison, insecticide and fish poison, and is toxic to mammals including humans.

Toxic part - Whole plant.

Effects of poisoning

Reactions to this plant are as follows:

Oleandrigenin, is one of the toxins present in Oleander. It causes major effects in human and in animals. Ingestion can cause both gastrointestinal and cardiac effects. The gastrointestinal effects can consist of nausea and vomiting, excess salivation, diarrhea, abdominal pain, that may or may not contain blood, and colic in horses especially. Cardiac reactions consist of irregular heart rate, sometimes characterized by a racing heart at first that then slows to below normal further along in the reaction. The heart may also beat erratically with no sign of a specific rhythm. Extremities may become pale and cold due to poor or irregular circulation. Central nervous system is affected by thereactions to poisonings from this plant. These symptoms can include drowsiness,seizures, tremors or shaking of the musclescollapse, and even the patients may go in coma, which can lead to death. Oleander sap can cause skin irritations, severe eye inflammation and irritation, and allergy reactions characterized by lesions on the skin.

The best way to cure an oleander poisoning is inducing vomiting has success, although it is usually used only for life-threatening conditions due to side-effects.

Drying of plant materials does not eliminate the toxins. It is also hazardous for animals such as grazing animals, with as little as 100 g being enough to kill an adult horse. Plant clippings are especially dangerous to horses, from the leaves of the plant.

Symptoms of a poisoned horse include severe diarrhea and abnormal heartbeat. There is a wide range of toxins and secondary compounds within oleander, and care should be taken around this plant due to its toxic nature. Different names for oleander are used around the world in different locations, so, when encountering a plant with this appearance, regardless of the name used for it, one should exercise great care and caution to avoid ingestion of any part of the plant, including its sap and dried leaves or twigs. The dried or fresh branches should not be used for spearing food, for preparing a cooking fire, or as a food skewer. Many of the oleander relatives, such as the Desert Rose (found in East Africa, have similar leaves and flowers and are equally toxic.

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