



MEDICINAL BENEFITS OF NERIUM OLEANDER

S. Puranik

Department of Botany, Shri Shivaji Science College, Ajni, Nagpur- 15
Email: sumedhadpuranik@gmail.com

ABSTRACT:

The developing countries mostly rely on traditional medicines to treat ailments and diseases. The study aims at identifying the medicinal importance of *nerium*. It is an important folk medicine. It is a vegetative propagated ornamental plant, valued for its evergreen foliage and showy terminal flower clusters that are available in different colours. *Oleander* is cultivated recently as a flowering pot plant and therefore abundant propagation of plant material for commercial use is of great importance. This species also produces secondary metabolites, some of which are pharmacological interests. The important pharmacological activities are anti-inflammatory, antibacterial, anticancer, antinociceptive, and CNS depressant activity. This paper explains in detail the medicinal importance of *nerium oleander*.

KEYWORDS: *Nerium Oleander*, medicinal importance

INTRODUCTION

In recent years, traditional system of medicine has become a topic of global importance. Many of the plant species that provide medicinal herbs have been scientifically evaluated for their possible medicinal applications. It has been mentioned that natural habitats for medicinal plants are disappearing at a faster rate and together with environmental and geopolitical instabilities; it is increasingly difficult to acquire plant derived compounds.

Nerium oleander L. is an evergreen shrub reaching up to four meters in height. and belongs to the family – Apocynaceae, is a shrub or occasionally tree distributed in tropical Asia *Nerium oleander* L. is cultivated worldwide as an ornamental plant. It is native to the Mediterranean region [1, 2] and is also found in Southern Europe and



Southwest Asia, but is naturalize very easily and in many areas the plant is sub-spontaneous.

Oleander grows to 2–6 m (6.6–20 ft) tall, with erect stems that splay outward as they mature; first-year stems have a glaucous bloom, while mature stems have a grayish bark. The leaves are in pairs or whorls of three, thick and leathery, dark-green, narrow lanceolate, 5–21 cm (2.0–8.3 in) long and 1–3.5 cm (0.39–1.4 in) broad, and with an entire margin. The flowers grow in clusters at the end of each branch; they are white, pink to red, 2.5–5 cm (0.98–2.0 in) diameter, with a deeply 5-lobed fringed corolla round the central corolla tube. They are often, but not always, sweet-scented. The fruit is a long narrow capsule 5–23 cm (2.0–9.1 in) long, which splits open at maturity to release numerous downy seeds.

Medicinal Importance

The leaves and the flowers are cardiotoxic, diaphoretic, diuretic, anticancer, antibacterial [6], anti-fungal [7] and expectorant. A decoction of the leaves has been applied externally in the treatment of scabies and to reduce swellings. This is a very poisonous plant, containing a powerful cardiac toxin and should only be used with extreme caution. The root is powerfully resolvent, is used in the form of plasters and is applied to tumors because of its poisonous nature it is only used externally. It is beaten into a paste with water and applied to lesion and ulcers on the penis. [8].

Bark is bitter and is used as cathartic, febrifuge and intermittent fever. Plants have an extensive root system and are often used to stabilize soil in warmer areas. Oil prepared from the root bark is used in the treatment of leprosy and skin diseases of a scaly nature. Seeds are Poisonous, abortifacient and alternative. They used as purgative in



dropsy and rheumatism. The whole plant is said to have anticancer properties [9].

Nerium oleander has also been used in the treatment of cancer [10] the flowers, leaves, leaf juice or latex, bark and roots have been used against corns, warts, cancerous ulcers, carcinoma, ulcerating or hard tumors.

Economic Importance:

The plant is used as a rat poison and an insecticide [5]. The pounded leaves and bark are used as an insecticide. A green dye is obtained from the flowers. The plant is commonly used for informal hedging in the Mediterranean. The leaves contain small amounts of latex that can be used to make rubber, though the amount is too small for commercial utilization. The plants have an extensive root system and are often used to stabilize soil in warmer areas.

OBSERVATIONS AND CONCLUSIONS

The paper concludes that the Nerium oleander has many therapeutic uses in different traditional medicine of the world. In ethno botanical literature it is mentioned to be effective in the treatment of cardiac illnesses asthma, corns, cancer, epilepsy and also used as diuretic. The leaves and the flowers are cardio tonic, diaphoretic, diuretic, emetic, antibacterial, expectorant and have antiplatelet aggregation activity. Its various parts are reputed as therapeutic agents in the treatment of swellings, leprosy, eye and skin diseases shown that the same possibilities exist for stem of the plants. Oleandrine is antiinflammatory, antitumoral, emollient and potentialises apoptosis.



REFERENCES:

- Kingsbury JM .(1964) .Poisonous plants of the United States and Canada. Englewood Cliffs, NJ Prentice Hall.
- Hardin JW and Arena JM. (1974). Human poisoning from native and cultivated plants, 2nd ed. Kingsport, Tennessee, Duke University Press.
- Sabira Begum, Bina S. Siddiqui, Razia Sultana, Atiya Zia and Amin Suria. (1999). Phytochemistry Volume 50, Issue 3, 10: pp. 435-438
- Goetz, Rebecca. J. "Oleander".(2005). Indiana Plants Poisonous to Livestock and Pets.Cooperative Extension Service, Purdue University. : pp.10-23.
- Kirtikar,K.R. and B.D.Bassu .(1999).Indian medicinal plants. International book distributors, Dehradun, India
- Chopra. R. N., Nayar. S. L. and Chopra. (1986). I. C. Glossary of Indian Medicinal Plants.Council of Scientific and Industrial Research, New Delhi.
- Wang, XM: Plomley, JB: Newman, RA: Cisneros, A: (2000).Anal. Chem. 2000: 72 (15) pp. 3547 – 3552.
- Marchioni, A.R. and F. CalioDistefano. (1989). Nerium oleander L.LepiantemedicinalidellaSardegna-Guidapratica per ilriconoscimento di 102 specie (in Italian).(Medicinal plants of Sardinia-practical guide-book for 102 species recognition). Ed.della Torre: pp.156-157.
- Abe, F.and T. Yamauchi. (1992). Phytochemistry 31 (7): pp. 2459-2463.
- Valnet, J. (1976). Oleandro, Fitoterapia-curadellemalattie con le piante (in Italian).(Oleander, phytotherapy-diseases cure with plants). Aldo Martello-Giunti, Firenze, Italy: pp. 332-333.