

Phytochemical Analysis and Anti-viral Potential of Calotropis Procera in Rabies

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Abstract: *Calotropis procera* is a species of flowering plant belonging to the family Apocynaceae. It is native to Northern and Tropical Africa, Western Asia, South Asia, and Indochina (mainland Southeast Asia). The plant typically grows to a height of 1.8 to 2.4 meters (approximately 6 to 8 feet). The bark and sap are used to make drinks and to thicken milk. The multipotent biological activities of *Calotropis Procera*, including anti-inflammatory, antioxidant, anticancer, wound healing, and broad spectrum antimicrobial properties, have been extensively studied. The plant is known to contain a variety of phytoconstituents such as flavonoids, terpenoids, cardenolides, steroids, and oxy pregnanes. It possesses numerous medicinal properties that act based on its active principles. The medicinal properties of *Calotropis procera* are well-documented in Ayurvedic medicine, where it is considered effective in the treatment of dog bites. *Calotropis procera* is believed to help neutralize rabies infection and promote recovery. Additionally, the latex of *Calotropis procera* is known to exhibit antimicrobial activity, playing a role in combating various bacterial, viral, and fungal infections. It possesses numerous medicinal properties that act based on its active principles.

The medicinal properties of *Calotropis procera* are in Ayurvedic medicine, where it is considered effective in the treatment of dog bites. According to Ayurvedic texts, *Calotropis procera* is believed to help neutralize rabies infection and promote recovery. Additionally, the latex of *Calotropis procera* is known to exhibit antiviral activity, playing a role in combating various bacterial, viral, and fungal infections. The reported human mortality due to rabies infection appears low, cultural beliefs, inadequate rabies diagnostic facilities, and limited public knowledge about the modes of transmission and prevention of the disease (Otolarin et al., 2015). Indigenous tribes across the world utilize this plant for the treatment of a wide range of ailments, including snake bites, body pain, asthma, epilepsy, cancer, skin diseases, and others. This review provides a comprehensive overview of the epidemiology, transmission, pathogenesis, recent advances in diagnosis, vaccination, and therapeutic approaches, along with appropriate prevention and control strategies.

Keywords: Rabies, *Calotropis Procera*, Ayurvedic medicine, antiviral potential, leaves

