

A Review on *Tinospora Cordifolia*: Immunity System

Mr. Kotkar Akshay¹, Prof. Garud Neha S.², Prof. Giramkar Ankita³
Prof. Pansare Vikram⁴, Dr Khedkar Amol Navnath⁵.

Research Scholar¹, Assistant Professor^{2,3,4}, Principal⁵

Saikrupa Institute of Pharmacy, Ghargaon, Ahmednagar, Maharashtra, India

Abstract: The herb known as guduchi, or *Tinospora cordifolia*, is a native of hot regions of the Indian subcontinent and has leaves with a heart-shaped shape. It is suggested to be helpful in treating a variety of ailments like skin conditions, various types of fever, jaundice, and gout in our traditional Ayurvedic scriptures. Guduchi also made claims about having properties that included being anti-oxidant, anti-hyperglycemic, anti-hyperlipidemic, hepatoprotective, cardiovascular protective, neuroprotective, osteoprotective, radioprotective, anti-anxiety, adaptogenic agent, analgesic, anti-inflammatory, antipyretic, athrombolytic agent, anti-diarrheal, anti-ulcer, antimicrobial, and anti-cancer. The current paper is an effort to compile data based on several experimental and clinical findings on *Tinospora cordifolia*'s immunomodulating effects.

Due to its general tonic, antiperiodic, antispasmodic, antiinflammatory, antiarthritic, antiallergic, and antidiabetic characteristics, *tinospora cordifolia*, also known as "Rasayana," is widely employed in many herbal remedies for the treatment of many diseases. Due to its capacity to strengthen the immune system and the body's resistance to infections, it is widely utilized in Ayurveda. One significant and widely used herb that is a component of many Ayurvedic, Unani, and Siddha system of medicines is *Tinospora cordifolia* (Gioly). The review paper provides details on *Tinospora cordifolia* cultivation, harvesting, chemical composition, and medicinal use. Anti-inflammatory, anti-cancer, anti-aids, anti-ulcer, and anti-diabetic. Anti-allergic effect. Guduchi's pharmacological effects, Which include nootropic, Antioxidant and immune system regulation in conditions like type 2 diabetes radioprotective and antioxidant properties. Alkaloids, glycosides, and steroids are primarily found in the plant. Sesquiterpenoids, an aliphatic molecule, an essential oil, and a combination of polysaccharides and fatty acids. Particle-induced X-ray imission technology has been used to conduct trace element investigations on the aqueous extract of these medicinal plants for their therapeutic use. The entire leaf sample's extremely high chloride, potassium, and calcium concentration Recent years have seen a rise in research on the use of natural immunomodulators to treat a variety of immune-related disorders. Among the pharmacological herbs. Due to its widespread usage in ethnomedicine to treat a variety of conditions connected to immune-associated disorders, *Tinospora* species (family Menispermaceae) are among the plants that have been extensively studied for their modulating effects on the immune system. However, the majority of their ethnopharmacological applications lack or have scant scientific support. As of right now, there is no precise treatment or vaccination to prevent this illness, which primarily targets the immunological system of the body. Existing disease-modifying and antiviral medications are being used to treat COVID-19. The development of specific immunomodulators, antiviral drugs, or vaccines for SARS-CoV-2 involves several -different sorts of research. In Ayurveda, the concept of an epidemic condition (Janapadodhwanasa) is described, and several measures are mentioned for their prevention and treatment, including Rasayan dravyas (drugs that modulate the immune system). Willd.'s *Tinospora cordifolia* one immune-modulating medication in Ayurveda is called Miers, and it is known to have qualities like antioxidant, immunomodulatory, anti-inflammatory, anti-antiallergic, antiviral, hyperglycaemic, etc. Glycosides, alkaloids, steroids, diterpenoid lactones, sesquiterpenoids, and aliphatic compounds are the main compounds

Keywords: *Tinospora Cordifolia*; Immune health, Phytochemistry, Ethnobotany, Pharmacological Aspects