

Therapeutic potential of *Ganoderma lucidum*/ Reishi mushroomAroosa Rehman¹, Bushra Siddique², Amna Nadeem³, Abdul Mateen⁴

Ganoderma lucidum, commonly known as Reishi mushroom, has a history of use in traditional Chinese, Japanese, and Korean medicine.

It has the ability to support treatments for diseases such as diabetes, neurodegenerative disorders, atherosclerosis, and inflammation. Polysaccharides extracted from *G. lucidum* exhibit antioxidant, immunomodulatory, anticancer, and antibacterial properties, establishing it as a versatile therapeutic agent.

Highlighting its role in cancer therapy, according to Ünlü A et al., *G. lucidum* extracts exhibit anti-proliferative effects, including apoptosis induction, cell cycle arrest in tumour cells, and enhancement of natural killer (NK) cell cytotoxicity against cancer cells. The mushroom also inhibits angiogenic factors, suggesting a potential chemotherapeutic application.¹

In China, *G. lucidum* has been clinically utilized since 1973. According to a study by Chang ST et al., after 1990s *Ganoderma* products gained popularity in regions such as Europe, Malaysia, North America, and Singapore.²

As per study by Bijalwan A et al., India has become a major market for herbal products, including *Ganoderma*. Increased awareness and accessibility through online

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platforms and multi-level marketing have contributed to this growth. The Indian *Ganoderma*-based nutraceutical market was valued at approximately USD 20 million in 2012.³

In Pakistan, *G. lucidum* remains underexplored despite its therapeutic potential. Sharif S et al. reported that *G. lucidum* is cultivated and isolated in Jinnah Garden, Faisalabad.⁴

Ganoderma lucidum has significant potential to revolutionize health treatments in Pakistan. Its application in treating cancer and other ailments can offer a novel, cost-effective solution to reduce morbidity and mortality rates. Further investment in research and development of *G. lucidum*-based therapies is essential to realise its full potential.

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AR: Concept, data collection, analysis, interpretation and writing.

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