

Pharmacological Review on *Datura Stramonium L.*

**Navale Dnyaneshwari¹, Kandhare Komal², Chavhan Aniket³, Awari Shubham⁴,
Chaugule Sahil⁵, Gadge Shubham⁶**

Students, Samarth Institute of Pharmacy, Belhe, Maharashtra, India^{1,2,3,4,5}

Department of Pharmacology, Samarth Institute of Pharmacy, Belhe, Maharashtra, India⁶

Abstract: *Datura stramonium L.*, a wild-growing plant of the Solanaceae family, is widely distributed and easily accessible. It contains a variety of toxic tropane alkaloids such as atropine, hyoscamine, and scopolamine. In Eastern medicine, especially in Ayurvedic medicine, *D. stramonium* has been used for curing various human ailments, including ulcers, wounds, inflammation, rheumatism and gout, sciatica, bruises and swellings, fever, asthma and bronchitis, and toothache. Antifungal activity, antioxidant activity, anti-cancer, antiviral, Antiperspirant, analgesic effect, hypoglycemic effect are the various activities of datura. In this review we are trying to brief introducing pharmacognostic review on the plant and its pharmacological activities by various in vitro as well as in vivo screening activities.

Keywords: Pharmacological activities, Phytochemical substances, Pharmacognostic characterization.

REFERENCES

- [1]. Kirtikar JD, Basu BD. Indian medicinal plants. Allahabad: Lalit Mohan Basu; 1994. pp. 1229–1231.
- [2]. Das S, Kumar P, Basu SP. Review article on phytoconstituents and therapeutic potentials of *Datura stramonium* linn. J Drug Del Therap. 2012;2(3):4–7.
- [3]. Parashuram M. Isolation of 11,12,13,17-Tetrahydroxy-(Hydroxymethyl)-10-Nitrodotriacontahydrospiro[Indeno[5,6-A] Hexacene-2,2'-Pyran]=3,6(1H,18bh) Dione and its spectroscopic characterization and biological activities of bimetals from seeds of *Datura stramonium*. Asian J Bioch Pharm Res. 2011;3(1):501–506.
- [4]. Shagal MH, Modibbo UU, Liman AB. Pharmacological justification for the ethnomedical use of *Datura stramonium* stem-bark extract in treatment of diseases caused by some pathogenic bacteria. Int Res Pharm Pharmaco. 2012;2(1):16–19.
- [5]. Oseni OA, Olarinoye CO, Amoo IA. Studies on chemical compositions and functional properties of thorn apple (*Datura stramonium* L) Solanaceae. Afric J Food Sci. 2011;5(2):40–44.
- [6]. Devi MR, Meenakshi B, Paul SB, Sharma GD. Neurotoxic and medicinal properties of *Datura stramonium* L.-Review. BiolEnvir Sci. 2011;7(1):139–144.
- [7]. Nadkarni KM, Nadkarni AK. Indian material medica. Bombay: Popular Prakashan; 1996. p. 435.
- [8]. Jarald E, Edwin S. Textbook of pharmacognosy and phytochemistry. 1st ed. New Dehli: CBS Publisher and Distributors; 2007. p. 224.
- [9]. Gupta DP. The herb, habitat, morphology and pharmacognosy of most important popular Indian medicinal plant. 1st ed. Madhya Pradesh: Printwell Offset Publisher; 2008. p. 185.
- [10]. Gary I, Stafford A, Anna K, Jager B, Johannes VS. Activity of traditional South African sedative and potentially CNS-acting plants in the GABA-benzodiazepine receptor assay. J Ethnopharm. 2005;100:210–215.
- [11]. Pandey M, Debnath M, Gupta M, Chikara SK. Phytomedicine: An ancient approach turning into future potential source of therapeutics. J Pharmacogn Phytother. 2011;3(3):27–37.
- [12]. Paolo MG. Traditional antihelminthic, antiparasitic and repellent uses of plants in Central Italy. J Ethnopharm. 2001;68(1–3):183–192.
- [13]. Ertekin V, Selimoglu MA, Altinkaynak SA. Combination of unusual presentations of *Datura stramonium* intoxication in a child: Rhabdomyolysis and fulminant hepatitis. J Emerg Med. 2005;28:227–228.
- [14]. Ivancheva S, Nikolova M, Tsvetkova R. Pharmacological activities and biologically active compounds of

Bulgarian medicinal plants. In: Inperato F, editor. Phytochemistry: Advances in research. Kerala: Signpost; 2006. pp. 87–103.

- [15]. Strahil B, Rawia Z, Tsvetelina D. Alkaloid patterns in some varieties of *Datura stramonium*. *Fitoterapia*. 2006;77(3):179–182.
- [16]. Banso A, Adeyemo S. Phytochemical screening and antimicrobial assessment of *Abutilon mauritianum*, *Bacopamonnifera* and *Datura stramonium*. *Biokem*. 2006;18(1):39–44.
- [17]. Pretorius E, Marx J. *Datura stramonium* in asthma treatment and possible effects on prenatal development. *Environ Toxicol Pharm*. 2006;21(3):331–337.
- [18]. Taha SA, Mahdi AW. *Datura* intoxication in Riyadh. *Trans R Soc Trop Med Hgy*. 1984;78:134–135.
- [19]. Diker D, Markovitz D, Rothman M, Sendovski U. Coma as a presenting sign of *Datura stramonium* seed tea poisoning. *Eur J Int Med*. 2007;18(4):336–338.
- [20]. Boumba A, Mitselou A, Vougiouklakis T. Fatal poisoning from ingestion of *Datura stramonium* seeds. *Vet Human Toxicol*. 2005;46:81–82.