IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 8, April 2023

Review on *Aeglemarmelous* a Potential Medicinal Tree

Swapnil Kailas Gorde and Prof. Kuldeep Waidya
Samarth Institute of Pharmacy, Belhe, Maharashtra, India

Abstract: *Aeglemarmelos is a plant in the Rutaceae family that is one of the most significant in themedicinal field due to its properties. Bilwais used to treat a variety of medical problems. Since the time of the dinosaurs, this plant has existed. The plant contains a variety of pharmacological qualities, including wound healing, antipyretic potential, antidiarrheal activity, Diuretic activity, Ulcer healing, and more. Antithyroid activity, Immunomodulatory activity, Antifungal activity, Antimicrobial activity, Antioxidant activity, Radio protective effect, Contractile activity, Antiarthritis activity, Analgesic activity, Cytoprotectiveeffectuate-constipating effect. Alkaloids, Terpenoids, Vitamins, Coumarins, Tannins, Carbohydrates, Flavonoids, Fatty Acids, Essential Oils, and other miscellaneous chemicals are among the identified constituents. This study summarises information about the A. marmelos' morphology, distribution, phytochemistry, traditional uses, and biological activity.*

Keywords: Aeglemarmelous, Antioxidant, Analgesic, Morphology

REFERENCES

[1]. Parmar C and Kaushal MK, Aeglemarmelos. In: Wild Fruits, Kalyani Publishers, New Delhi, India. 1982, 1–5.
[2]. Shoeb M. Anti-cancer agents from medicinal plants. Bangladesh journal of Pharmacology. 2006;1(2):35-41.
[3]. 3Sekar DK, Kumar G, Karthik L, Rao KB. A review on pharmacological and phytochemical properties of Aeglemarmelos (L.) Corr. Serr. (Rutaceae). Asian Journal of Plant Science and Research. 2011;1(2):8-17.
[4]. .Bhar K, Mondal S, Suresh P. An eye-catching review of Aeglemarmelos L. (Golden Apple). Pharmacognosy Journal. 2019;11(2): 207-224
[5]. Purohit SS and Vyas SP, In: Aeglemarmelos Correa ex Roxb. (Bael), Medicinal plant Cultivation- A Scientific Approach, Agrobios, Jodhpur,2004, pp.280-285
[6]. . Dhankhar S, Ruhil S, Balhara M, Dhankhar S, Chhillar AK. Aeglemarmelos (Linn.) Correa: A potential source of Phytomedicine. J Med Plant Res. 2011 May 4;5(9):1497-507.
[7]. Dhankher S. AegleMarmelos (Linn.) Correa: A source of phytomedicine. Jmedi plants Res, 2010;5(9):197-1507
[8]. PatkarAtul N, Desai Nilesh V, a review of AegleMarmelos: a potential medicine, international research journal of pharmacy, ISSN 2230-8407.
[9]. . Pushpendra K. Patel, AegleMarmelos: A Review on its Medicinal Properties, International Journal of Pharmaceutical and Phytopharmacological Research.
[10]. Dinesh Kumar Sekar, A review on pharmacological and phytochemical properties of AegleMarmelos(L.) Corr. KumariAnupama et al: Bilwa (AegleMarmelos) - A Review Article IAMJ: Volume 8, Issue 2, February - 2020 (www.iamj.in) Page 2796 Serr. (Rutaceae), Asian Journal of plant and research, 2011, 1 (2):8-17
[11]. Kintzios SE. Terrestrial plant-derived anticancer agents and plant species used in anticancer research. Critical reviews in plant sciences 2006 May ; 25(2): 79-113.
[12]. . Neeraj VB, Johar V. Bael (Aeglemarmelos) extraordinary species of India: a review. Int. J. Curr. Microbiol. Appl. Sci 2017; 6(3): 1870-87.
[13]. Sharma N, Dubey W. History and taxonomy of Aeglemarmelos: a review. International Journal of Pure and Applied Bioscience 2013; 1(6): 7-13
[14]. . . Om P. Food and Drinks in Ancient India, from Earliest Times to c. 1200 ad.1961; 26(1): 198-199.
[15]. . Śārṅgadhara, Majumdar GP. Upavana-vinoda: A Sanskrit treatise on arbori-horticulture. Indian Research Institute; 1935.

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 8, April 2023

[16]. . Ghosh S, Kumar A, Sachan N, Chandra P. Bioactive Compounds and Distinctive Pharmacological Activity Guided Review of Aeglemarmelos: A Miraculous Plant of Indigenous Medicine System. Current Bioactive Compounds 2020 Oct 1; 16(7): 965-77.

[17]. Sekar DK, Kumar G, Karthik L, Rao KB. A review on pharmacological and phytochemical properties of Aeglemarmelos (L.) Corr. Serr. (Rutaceae). Asian Journal of Plant Science and Research 2011; 1(2): 8-17

[18]. . . Ajithkumar D, Seeni S. Rapid clonal multiplication through in vitro axillary shoots proliferation of Aeglemarmelos (L.) Corr., a medicinal tree. Plant Cell Reports 1998 Mar; 17(5): 422-6

[19]. . Das SK, Roy C. The protective role of Aeglemarmelos on aspirin–induced gastro-duodenal ulceration in albino rat model: a possible involvement of antioxidants. Saudi Journal of gastroenterology: official journal of the Saudi Gastroenterology Association 2012 May; 18(3): 188. 27. Mali SS, Dhumal RL, Havaldar VD, Shinde SS

[20]. Mali SS, Dhumal RL, Havaldar VD, Shinde SS, Jadhav NY, Gaikwad BS. A systematic review on Aeglemarmelos (Bael). Research Journal of Pharmacognosy and Phytochemistry 2020; 12(1): 31-6.

[21]. . Swingle WT. botany of citrus and its wild relatives of the orange subfamily (family Rutaceae, subfamily Aurantioideae); 1943. p. 1.

[22]. Cottin R. Citrus of the World. A Citrus Directory Version 2. SRA INRA-CIRAD, France; 2002. 30. Bayer RJ, Mabberley DJ, Morton C, Miller CH, Sharma IK, Pfeil BE, Rich S, Hitchcock R, Sykes S. A molecular phylogeny of the orange subfamily (Rutaceae: Aurantioideae) using nine cpDNA sequences. American Journal of Botany 2009 Mar; 96(3): 668-85

[23]. Nagar S, Kumar M, Kumatkar RB, Sharma JR, Sing S. Evaluation of Bael (Aeglemarmelos Corr.) germ plasms for seed and qualitative characters under semi-arid conditions of Haryana. International Journal of Pure & Applied Bioscience 20

[24]. Upadhyay RK. Bel plant: A source of pharmaceuticals and ethno medicines. International Journal of Green Pharmacy (IJGP). 2015 Dec 14;9(4). 11. Kirtikar KR, Basu BD. Indian medicinal plants. Indian M

[25]. Basu Da, Sen R (1974). Alkaloids and coumarins from root bark of *Aeglemarmelos*. *Phytochemistry*, 13: 2329-233

[26]. Sharma P K, Bhatia v Bansal Nand Sharma International journalJournal of life Scientific Research A.A review on bael tree . Natural prtoduct Radiance volume -1 Issue -1 .pp-5-7

[27]. Yadav NP, Chanotia CS. Phytochemical and pharmacological profile of leaves of Aeglemarmelos Linn. The pharma Review 2009:144-9

[28]. Laphookhieo S, Phungpanya C, Tantapakul C, Techa S, Tha-in S, Narmddorkmai W: Chemical constituents from Aeglemarmelos. J. Braz. Chem. Soc 2010; 00(00); 1-3.

[29]. . Rajan S, Gokila M, Jency P, Brindha P, Sujatha RK. Antioxidant and phytochemical properties of Aeglemarmelos fruit pulp. Int J Curr Pharm Res 2011; 3(2): 65- 70.

[30]. . Kaur C, Kapoor HC. Antioxidant activity of some fruits in Indian diet. In VII International Symposium on Temperate Zone Fruits in the Tropics and Subtropics-Part Two 696; 2003 Oct 14. p. 563-565

[31]. . Anandharajan R, Jaiganesh S, Shankernarayanan NP, Viswakarma RA, Balakrishnan A. In vitro glucose uptake activity of Aeglemarmelos and Syzygiumcumini by activation of Glut-4, PI3 kinase and PPARγ in L6 myotubes. Phytomedicine 2006 Jun 12; 13(6): 434-41.

[32]. Kamalakkannan N, StanelyMainzen Prince P. Anti hyperlipidaemic effect of Aeglemarmelos fruit extract in streptozotocin-induced diabetes in rats. Journal of the Science of Food and Agriculture 2005 Mar; 85(4): 569-73. 88.

[33]. Hema CG, Lalithakumari K. Screening of pharmacological actions of Aeglemarmelos. Indian Journal of Pharmacology 1988 Apr 1; 20(2): 80.

[34]. Jain NK. Antifungal activity of essential oil of Aeglemarmelos Correa (Rutaceae). Ind Drugs PharmaceutInd 1977; 12: 55

[35]. Lampronti I, Martello D, Bianchi N, Borgatti M, Lambertini E, Piva R, Jabbar S, Choudhuri MS, Khan MT, Gambari R. In vitro anti proliferative effects on human tumor cell lines of extracts from the Bangladeshi medicinal plant Aeglemarmelos Correa. Phytomedicine 2003 Jan 1; 10(4): 300-8

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 8, April 2023

[36]. Vinodhini R, Narayanan M. Cytoprotective effect of Nelumbonucifera and Aeglemarmelos in Common Carp (Cyprinuscarpio L.) exposed to heavy metals. International journal of Integrative biology 2009; 7(2): 124-9.

[37]. Singanan V, Singanan M, Begum H. The hepatoprotective effect of Bael leaves (Aeglemarmelos) in alcohol induced liver injury in albino rats. International Journal of Science & Technology 2007; 2(2): 83-92.

[38]. . Sathiyaraj K, Sivaraj A, Madhumitha G, Kumar PV, Saral AM, Devi K, Kumar BS. Antifertility effect of aqueous leaf extract of Aeglemarmelos on male albino rats. Int J CurrPharmaceu Res 2010; 2: 26-9

[39]. Jagetia GC, Venkatesh P, Baliga MS. Aeglemarmelos (L.) Correa Inhibits the Proliferation of Transplanted Ehrlich Ascites Carcinoma in Mice. Biological and Pharmaceutical Bulletin 2005; 28(1): 58-64.

[40]. Costa-Lotufo LV, Khan MT, Ather A, Wilke DV, Jimenez PC, Pessoa C, de Moraes ME, de Moraes MO. Studies of the anticancer potential of plants used in Bangladeshi folk medicine. Journal of Ethnopharmacology 2005 May 13; 99(1): 21-30

[41]. Shankarananth V, Balakrishnan N, Suresh D, Sureshpandian G, Edwin E, Sheeja E. Analgesic activity of methanol extract of Aeglemarmelos leaves. Fitoterapia 2007 Apr 1; 78(3): 258-9

[42]. Gupta D, John PP, Pankaj K, Kaushik R, Yadav R. Pharmacological review of Aeglemarmelos corr. Fruits. International Journal of Pharmaceutical Sciences and Research 2011 Aug 1; 2(8): 2031.

[43]. Shanthi A, Radha R, Jaysree N. Anti-ulcer activity of newly formulated herbal capsule. Asian J Pharm Clin Res 2011; 4(3): 86-9

[44]. Shivhare Y, Singour PK, Patil UK, Pawar RS. Wound healing potential of Methanolic extract of TrichosanthesdioicaRoxb (fruits) in rats. Journal of ethnopharmacology 2010 Feb 17; 127(3): 614-9

[45]. Pattanayak SP, Sunita P. Wound healing, anti-microbial and antioxidant potential of Dendrophthoefalcata (Lf) Ettingsh. Journal of ethnopharmacology 2008 Nov 20; 120(2): 241-7

[46]. Lee KH. Studies on the mechanism of action of salicylates III. Effect of vitamin A on the wound healing retardation action of aspirin. Journal of Pharmaceutical Sciences 1968 Jul; 57(7): 1238-40.

[47]. Arul V, Miyazaki S, Dhananjayan R. Mechanisms of the contractile effect of the alcoholic extract of Aeglemarmelos Corr. on isolated guinea pig ileum and tracheal chain. Phytomedicine 2004 Nov 25; 11(7-8): 679-83.

[48]. Shivhare Y, Singour PK, Patil UK, Pawar RS. Wound healing potential of Methanolic extract of TrichosanthesdioicaRoxb (fruits) in rats. Journal of ethnopharmacology 2010 Feb 17; 127(3): 614

[49]. Jagetia GC, Venkatesh P, Baliga MS. Evaluation of the radio-protective effect of Aeglemarmelos (L.) Correa in cultured human peripheral blood lymphocytes exposed to different doses of γ-radiation: a micronucleus study. Mutagenesis 2003 Jul 1; 18(4): 387-93

[50]. Kothari S, Minda M, Tonpay SD. Anxiolytic and antidepressant activities of methanol extract of Aeglemarmelos leaves in mice. Indian J PhysiolPharmacol 2010 Oct 1; 54(4): 318-28

[51]. Duraisami R, Mohite VA, Kasbe AJ. Anti-stress, adaptogenic activity of standardized dried fruit extract of Aeglemarmelos against diverse stressors. Asian J Pharm Clin Res 2010; 3(4): 1-3.