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PHYTOCONSTITUENTS OF BUCHANANIA LANZAN LEAVES AND THEIR PHARMACOLOGICAL EFFECTS: A COMPREHENSIVE REVIEW

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ABSTRACT

More than 2000 distinct kinds of medicinal spices and herbs can be found in India's ancient herbal tradition. Despite having a broad geographic scope and admirable intentions, very few medications have been pharmacologically and chemically investigated for their potential therapeutic benefits. Due to their extensive safety margins and broad range of biological and therapeutic activities, herbal medications are highly sought after as a source of essential healthcare. This study aims to summarize the phytoconstituents present in the leaves of *Buchanania lanzan.* A host of therapeutic benefits belong to Anacardiaceae family. A wealth of phytochemicals, including flavonoids, phenol, steroids, saponins, glycosides, terpenoids, tannins, Epinitol, Vomicine and Celidoniol is found in *Buchanania Lanzan* leaf extract. Enormous medicinal value of practically every part of the plant, including the roots, leaves, fruits, seeds, and gum, is revealed by traditional indigenous knowledge apart from this, in this review article main focus is made on the various phytoconstituents and their pharmacological effect present in the leaves of *Buchanania lanzan*. The plant was found to be potent analgesic, antioxidant, anti-inflammatory, Cardio protective, anthelmintic, antibacterial, antifungal, antimicrobial, antidiabetic effects and cytotoxic agent.

KEYWORDS: Anacardiaceae, anticancerous, anti-diabetic, antimicrobial, phytoconstituents.

INTRODUCTION

Herbal treatments are safe, natural, and age-independent, making them suitable for all age groups and sexes. *Buchanania lanzan* Spreng, commonly known as char, piyal, achar, charoli, and chironji belong to Anacardiaceae family. This expensive herbal plant has the ample of therapeutic benefits, including memory enhancement, anti-hyperlipidaemic, anti-cancer, anti-inflammatory, anti-oxidant, anti-diabetic, anti-ulcer, and anti-diarrheal effects. (Mondal M et al., 2024).

Buchanania lanzan is a highly heterozygous, cross-pollinated tree which resulted in high variation in a natural population (Singh et al., 2010). Around 20 species under the genus Buchanania have been identified so far, among which seven species are reported to be found in India. *B. cochinchinensis* (Syn: B. lanzan / B. latifolia) and B. axillaries are the two main species producing edible fruits in India. B. axillaries (Syn: B. angustifolia) is a dwarf species that is reported to produce good quality edible kernels. B. lanceolata is found in the evergreen forests of Kerala and is marked as an endangered species. B. Platyneura is also reported to be edible, but found only in the islands of Andaman (Chauhan et al., 2012). The other minor species reported in India are B. lucida, B. accuminata and B. glabra. (Malakar. A et al., 2023).

The tree is most commonly known as "Chironji" in its native regions of India, Nepal, and Burma, but it is also known as "Almondette" or "Little Gooseberry tree" in English around the world (Janick and Paull, 2006). (A. Malakar et al., 2023). Chironji is a medium-sized, evergreen, sub-deciduous tree with straight trunk and tomentose branches that can reach a height of up to 18 meters.

The enormous medicinal value of practically every part of the plant, including the roots, leaves, fruits, seeds, and gum, is revealed by traditional indigenous knowledge. A wealth of phytochemicals, including flavonoids, phenol, steroids, saponins, glycosides, and tannins, can be found in *Buchanania Lanzan* leaf extract. The presence of a diverse group of phytochemicals is confirmed by plant extracts in various solvent systems. (Rani B et al., 2020).

Phytochemical investigation

The leaves of *Buchanania lanzan* contain a variety of bioactive compounds that contribute to its medicinal properties. The following phytochemicals have been identified in the leaves:

Phytochemicals in *Buchanania lanzan* Leaves

- Tannins
- Triterpenoids
- Saponins
- Flavonoids
- Quercetin
- Quercetin-3-rahmnoglucoside
- Gallic Acid
- Kaempferol
- Kaempferol-7-glucosides
- Reducing Sugars
- Myricetin 3'-rhmnoside-3-galactoside

Secondary Metabolites Detected

- Glycosides
- Phenolic Compounds

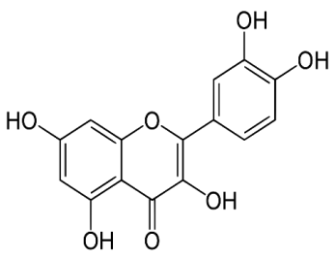
Isolated Compounds

- Glycoside**:** Myricetin 3-rhamnoside-3-galactoside.
- Epinitol
- Vomicine
- Celidoniol

These compounds were characterized based on chemical tests and spectral analysis, including infrared spectroscopy, nuclear magnetic resonance (NMR), and mass spectrometry. The presence of these diverse bioactive compounds underscores the therapeutic potential of *Buchanania lanzan* leaves. (Chaudhary. S et al., 2024).

Pharmacological action of

Quercetin



Quercetin and its derivatives exhibit many pharmacological activities, such as antiviral, anti-SARS-CoV-2, antioxidant, anticancer anti-inflammatory, antiaging qualities, treatment for arthritis, anti-allergic drugs, cardiovascular issues, and neurodegenerative brain diseases like Parkinson's and Alzheimer's. According to some reports, quercetin is a possible therapeutic candidate for treating epilepsy that warrants more research. Quercetin shows promise as a treatment for complications associated with sepsis. Amyloid β peptide, multiple sclerosis, Huntington's disease, and amyotrophic lateral sclerosis. In the case of atherosclerosis, quercetin enhances the potential of complementary or alternative medicine. (Wang G et al., 2022).

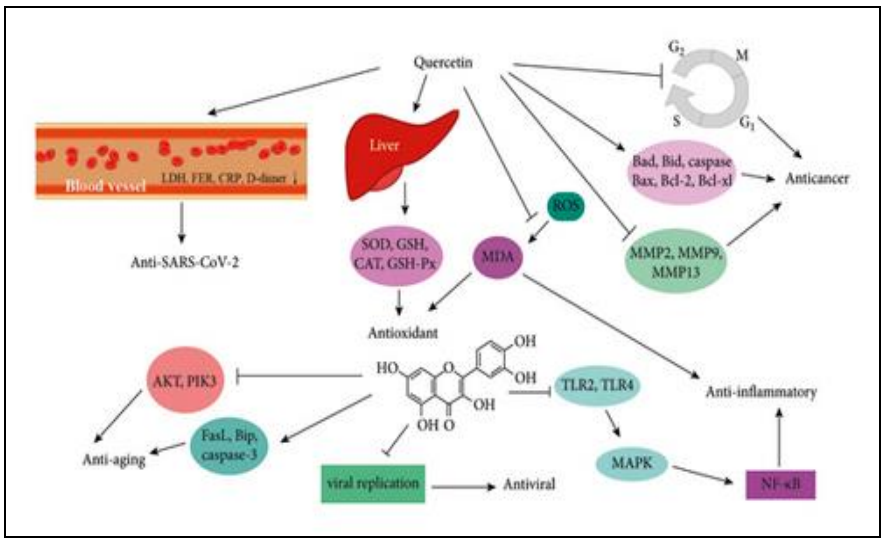
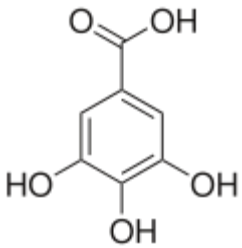


Figure 1: Quercetin and its pharmacological activities.

Gallic acid



A naturally occurring low molecular weight triphenolic compound, gallic acid (GA) (3, 4, 5-trihydroxybenzoic acid) is present in most plants as free acids, esters, derivatives of catechins, and hydrolysable tannins. Apart from their application as flavouring agents and preservatives, GA and its ester derivatives have been discovered to possess additional properties, including acting as a human xenobiotic metabolite, antioxidant, antidepressant, antimicrobial, antineoplastic, antidiabetic, anti-inflammatory, wound healing, cardiovascular,

gastrointestinal, metabolic, and neuropsychological diseases, as well as an apoptosis inducer and a geroprotector. Hepatoprotective as well. (Gupta et al., 2023).

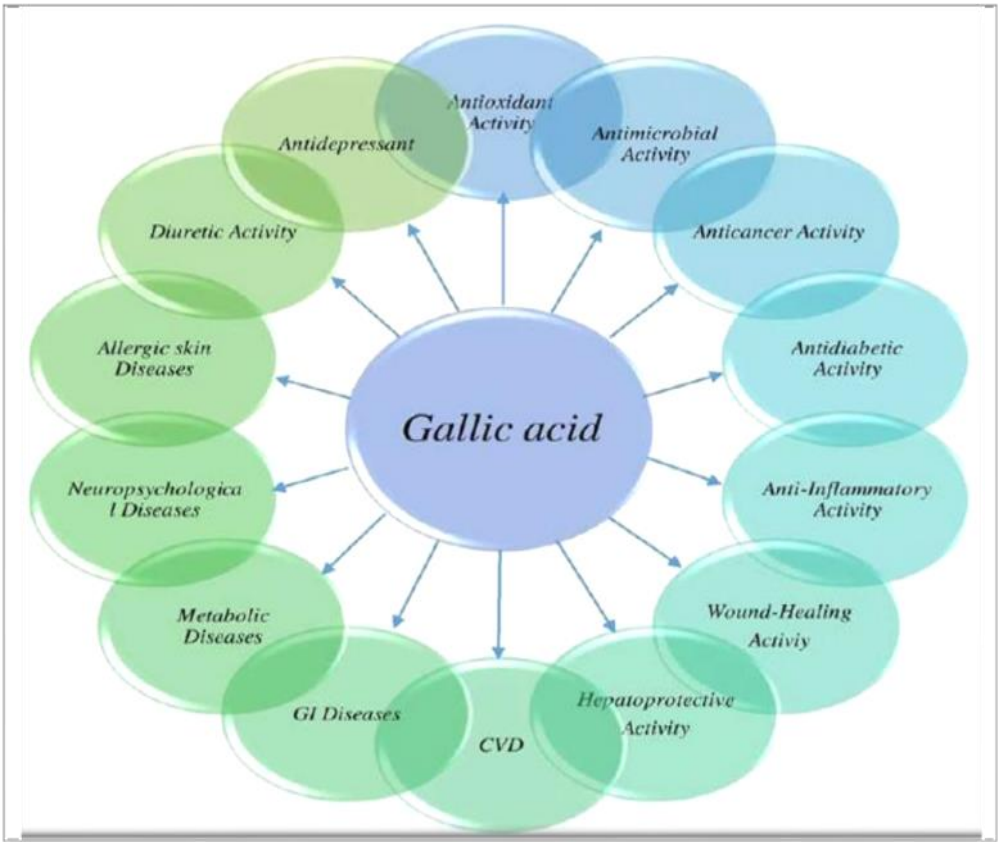
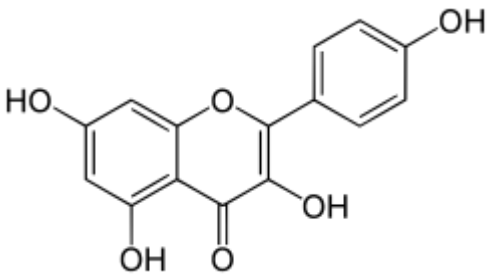


Figure 2: Different Pharmacological activities of Gallic acid (Gupta et al., 2023).

Kaempferol

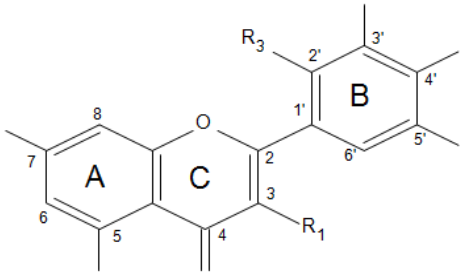


A common flavonoid in traditional medicine, kaempferol (3,5,7-trihydroxy-2-(4-hydroxyphenyl)-4H-1-benzopyran-4-one) is found in a wide variety of edible plants and botanical products. The pharmacological activities of kaempferol and some of its glycosides are widely varied, as evidenced by a number of preclinical studies. These activities include those that are antioxidant, anti-inflammatory, antiviral, antimicrobial, cardioprotective, neuroprotective, antidiabetic, anti-osteoporotic, estrogenic/antiestrogenic, anxiolytic,

analgesic, antiallergic and anticancer. Kaempferol functions through a variety of unique pathways, including the induction of apoptosis in cancerous cells, enzymatic inhibition, inhibition of signaling pathways, and downregulation of cell viability during the G2/M phase of cell division. (Parveen et al., 2023).

Myricetin

Myricetin (1) is structurally related to several well-known phenolic compounds (Figure 2), namely quercetin (3), morin (4), kaempferol (5) and fisetin (6). Because of its structural resemblance to quercetin, the compound is sometimes referred to as hydroxyquercetin (3). Myricetin's antioxidant and nutraceutical qualities are highly prized. Claims that the compound exhibits a range of pharmacological activities, such as anti-inflammatory, analgesic, antitumor, hepatoprotective, and antidiabetic effects, are supported by scientific evidence.

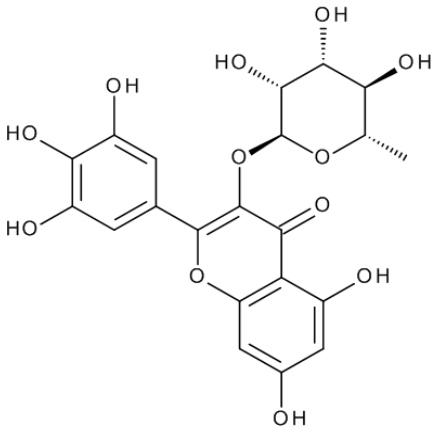


Myricetin (**1**) [R1=R2=R4=R5=R6=OH; R3=H]
Myricitrin (**2**) [R1=Rham; R2=R4=R5=R6=OH; R3=H]
Quercetin (**3**) [R1=R2=R4=R5=OH; R3=R6=H]
Morin (**4**) [R1=R2=R3=R5=OH; R4=R6=H]
Kaempferol (**5**) [R1=R2=R5=OH; R3=R4=R6=H]
Fisetin (**6**) [R1=R5=R6=OH; R2=R3=R4=H]

Figure 3: Chemical structures of myricetin and related compounds.

One of the main ingredients in many foods and drinks consumed by humans, such as fruits, vegetables, and teas, myricetin is known for its ability to chelate iron and to have anti-inflammatory, anti-oxidant, and anticancer effects.[19] Its effectiveness against a range of DNA polymerases, RNA polymerases, reverse transcriptase's, telomerases, kinases, and helicases has been shown in numerous studies. (Semwal D K et al., 2016).

Myricetin 3-rhamnoside



Myricetin 3-rhamnoside is a flavonoid glycoside found in various plants and fruits. Its pharmacological properties are of considerable interest due to its potential health benefits. Here's an overview of its pharmacological activities based on current research:

1. Antioxidant Activity

Antioxidant properties of myricetin 3-rhamnoside are interesting. It strengthens the body's antioxidant defence systems and scavenges free radicals, free radicals are countered by antioxidants, which also lessen oxidative stress—a condition associated with a number of chronic illnesses as cancer and cardio diseases. (Bhattacharya A et al., 2022).

2. Anti-Inflammatory Activity

With its demonstrated anti-inflammatory properties, myricetin 3-rhamnoside hinders the production of pro-inflammatory cytokines and enzymes such as COX-2 and NO. It also modulates NF-kB signaling pathways, which may be useful in the treatment of inflammatory diseases and conditions. (Wang, H et al., 2021)

3. Anti-Cancer Activity

According to research, of Zhang, L et al., (2023) myricetin 3-rhamnoside may have anti-cancer effects by preventing the growth of cells and causing apoptosis, or programmed cell death. It might target a number of signaling pathways, including the PI3K/Akt and MAPK pathways, which are important in the development of cancer.

The naturally occurring flavanol glycoside myricetin 3-rhamnoside has been associated with several pharmacological effects, but its antiproliferative qualities are not well-established. The study aims to investigate the antiproliferative efficacy and specifically target two poor

prognostic markers for breast cancer: hyaluronidase (HYAL) and ornithine decarboxylase (ODC). (Singh S et al., 2023).

4. Antidiabetic Activity

Myricetin 3-rhamnoside enhance insulin secretion along with their action, which reduces blood glucose levels. (Zhang R et al., 2020).

5. Neuroprotective Activity

Myricetin 3-rhamnoside has ability to treat neurodegenerative diseases by lowering oxidative stress and inflammation. It shows protection against neuronal damage and cognitive decline. (Yang Z et al., 2021).

6. Cardioprotective Activity

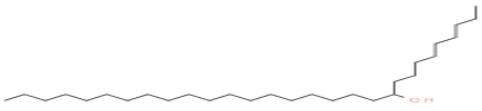
Myricetin 3-rhamnoside may contribute to cardiovascular health by improving lipid profiles and reducing the risk of heart disease.it act by lowering the cholesterol levels and reduce atherosclerosis by inhibiting lipid oxidation and inflammation. (Singh R et al., 2021).

7. Antibacterial and Antifungal Activities

It might inhibit the growth of various pathogens by interfering with their metabolic processes. Preliminary studies suggest that myricetin 3-rhamnoside may possess antibacterial and antifungal properties, which could make it useful in combating infections. (Kumar S et al., 2022).

Above studies provide a foundation for understanding the potential health benefits of myricetin 3-rhamnoside and guide further research into its applications.

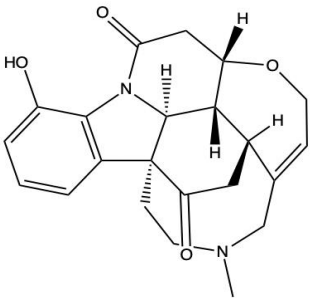
Celidoniol



Celidoniol also named as 10-Nonacosanol is a lesser-known compound found in some plants, it is primarily recognized as a sesquiterpene alcohol, Celidoniol, is present in *Buchanania lanzan* (Chironji), may contribute to the plant's pharmacological properties.

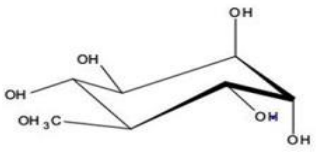
Chironji is traditionally used for its medicinal benefits, including antioxidant, anti-inflammatory, and antimicrobial activities. Celidoniol could potentially enhance these effects, aiding in reducing inflammation, combating microbial infections, and neutralizing free radicals. This compound might also support the plant's use in traditional medicine for treating ailments such as ulcers, wounds, and gastrointestinal issues. However, specific studies on celidoniol's effects within *Buchanania lanzan* are limited, and further research is needed to fully understand its contributions. (Neeraj et al., 2022).

Vomicine



Vomicine is a chemical compound found in some plants, notably in the genus *Vomicia*. It is a sesquiterpene alkaloid, and while research on vomicine is relatively limited compared to other compounds, some pharmacological activities have been reported. It shows antimicrobial properties against various bacterial and fungal strains, (Zhang, H., 2009) it has cytotoxicity against cancer cell lines. (Ali, M. S., 2014), The anti-inflammatory properties of vomicine have been studied, which may add to its overall therapeutic potential (Kang, J. H., 2012) and it might have antioxidant qualities that lower oxidative stress (Zhang, Y., 2011). While research on vomicine is still developing, existing studies suggest it has potential antimicrobial, anticancer, anti-inflammatory, and antioxidant activities.

Epinitol



Epinitol is a plant-derived compound with a variety of pharmacological activities. It is a member of the alkaloid family, and its pharmacological effects have been explored in several

studies. Here's a summary of its known pharmacological activities:

i) anti-cancer, through inhibition of TNF-ά and suppression of NF-ƙB pathway; ii) insulinomimetic and metabolic regulator in type 2 diabetes mellitus, via a post-receptor pathway of insulin action; iii) antioxidant; iv) hepatoprotective; v) immuno-modulator, balancing Th1/Th2 cytokines; vi) osteoporosis preventive, through p38/JNK and NF-kB pathways; vii) anti-aging, via reduction of the insulin/IGF-1 signalling (IIS) pathway; viii) improver of creatine retention; ix) preventive and ameliorative of Alzheimer's disease through selective γ-secretase modulation. (Srivastava et al., 2020.)

Medicinal properties of various parts of *Buchanania lanzan*

Pharmacological properties of *Buchanania lanzan*, including antimicrobial, antioxidant, and anti-inflammatory properties, have been reported. Root ethanol extract has strong antiulcer properties (Kodati et al. 2010). According to Shinde et al. (2017), the leaves have the potential to be hemoprotective, or to have antihaemolytic activity. Tannins, saponins, flavonoids, triterpenoids, alkaloids, and reducing sugar are all present in stem bark. It is said to possess genotoxicity, oxidative stress, anti-oxidant, and anti-microbial qualities (Srivastava et al. 2018). Similar to common antibiotics like ampicillin Penicillin-G, streptomycin (10disc), and fluconazole (10 mg), methanol leaf extract has anti-bacterial and anti-fungal properties (Elias et al., 2021). The fruit's kernel has roughly 52% oil in it. The oil that is extracted from the kernels is used in cosmetic production to replace almond and olive oils (Sharma et al., 2022).

Through an in-vitro study of antioxidant activity of various extracts from Chironji leaves, Pawar and Singh (2020) investigated the antioxidant and anti-cancerous potential of Chironji and concluded that chemicals extracted from Chironji have tremendous potential to be used as a cancer cure in the near future. *B. lanzan* is the most extensively distributed and widespread species among all the Chironji species, found all over the nation (Kirtikar and Basu, 1918). Buchanania cytogenetic research is extremely rare and still in its infancy.

In their evaluation of the antimicrobial properties of Chironji leaf extract, Niratker and Sailaja (2014) found that the extract exhibited strong potential antimicrobial activity against two fungal species, Aspergillus Niger and Penicillium sp., as well as three bacterial species, Escherichia coli, Pseudomonas aeruginosa, and Staphylococcus aureus. ((Malakar. A et al., 2023).

Future Prospective

1. **Neuroprotective Activity**: While some research focuses on the general health benefits of *Buchnania lanzan*, its potential to protect against neurodegenerative diseases or cognitive decline is not well-documented. (Chaturvedi, D. S et al., 2019)
2. **Anti-Anxiety and Anti-Depressant Effects**: The plant's impact on mental health conditions like anxiety or depression has not been extensively studied.
3. **Cardioprotective Activity**: There is limited research on whether *Buchnania lanzan* has protective effects on heart health, such as reducing hypertension or preventing cardiovascular diseases.
4. **Gastroprotective Activity**: Investigating whether *Buchnania lanzan* has effects on gastrointestinal health, such as preventing ulcers or improving digestion, could be a novel area of research.
5. **Immunomodulatory Effects**: The plant's ability to affect autoimmune diseases and modulate the immune system has not been fully investigated.
6. **Toxicological Studies**: Comprehensive studies on the safety and potential toxicity of *Buchnania lanzan* are important to understand any adverse effects and ensure its safety for therapeutic use.
7. **Anti-Obesity Effects**: Research on the plant's ability to influence body weight, fat metabolism, or obesity-related conditions is still limited.
8. **Metabolic Syndrome Management**: Investigating how *Buchnania lanzan* might influence various components of metabolic syndrome, including lipid profiles and glucose metabolism, could be an interesting area.
9. **Dermatological Applications**: Exploring potential benefits for skin health, including wound healing or anti-aging effects, has not been widely covered.
10. **Reproductive Health**: The effects of *Buchnania lanzan* on reproductive health and fertility are another area that has not been extensively studied.

Exploring any of these areas could potentially contribute valuable new knowledge to the field of pharmacology and help in developing novel therapeutic applications of *Buchnania lanzan*. If we are considering this for research, conducting a thorough literature review and identifying specific gaps in the current research will help us in design a meaningful study.

CONCLUSION

The plant Buchanania lanzan, also referred to as chironji, is rich in a variety of chemical

components that support its important therapeutic qualities. (Rani. B. et al., 2020)

In this review article main focus is made on the various phytoconstituents and their pharmacological effect present in the leaves of *Buchanania lanzan*. The plant was found to be potent analgesic, antioxidant, anti-inflammatory, Cardio protective, anthelmintic, antibacterial, antifungal, antimicrobial, antidiabetic effects and cytotoxic agent. The phytoconstituents which are present in the plant are mainly glycosides, phenols and alkaloids which are responsible for the actions. More research is needed to isolate the constituents responsible for the biological actions. (Elias A., et al., 2021).

Research on *Buchanania lanzan* is still evolving, and several areas might not yet be extensively studied. further scientific research is essential to fully understand the mechanisms and efficacy of its chemical constituents in modern medicine. there are several other areas where research is limited or less explored is also reviewed and mentioned in this research article.

REFERENCES

1. Mondal, M., Konar, A., Halder, S., Roy, A., Dalal, D.D., and Ghosh, P. An insight into the morphological, ethnomedicinal, phytochemical and pharmaceutical properties of Buchanania lanzan into the morphological, ethno medicinal, phytochemical and pharmaceutical properties of Buchanania lanzan. *Journal of Medicinal Plants studies*, 2024; 12(1): 11-17. https://doi.org/10.22271/plants.2024.v12.i1a.1620.
2. Malakar, A., Sahoo, H., Sinha, A., & Kumar, A. Necessity of genetic diversity study and conservation practices in chironji (Buchanania cochinchinensis (Lour.) M.R. Almedia). *Environment Conservation Journal*, 2023; 24(1): 253–260. https://doi.org/10.36953/ECJ.12802358.
3. Rani, B., Singh, U., Ram, L., Mahala, K. R., and Maheshwari R.K. Buchanania lanzan: A commendable nutty seed of enormous potentiality for wellbeing. *European Journal of Pharmaceutical and Medical research*, 2020; 7(12): 409-414.
4. Neeraj, Bisht, V., and Purwar, S. Chironji (Buchanania lanzan) Wonder Tree: Nutritional and Therapeutic Values. *International Journal of Current Microbiology and Applied Sciences*, 2020; 9(2): 2319-7706. https://doi.org/10.20546/ijcmas.2020.902.349.
5. Sharma, B. P., Singh, G., Akhter, F and Kumar, S. Buchanania cochinchinensis (Lour.) M.R. Almeida: a wild nutraceutical of India. *Indigenous Traditional Knowledge and Advancement in Medicinal Plants Research*, 2022; 36-40. Doi:10.5281/zenodo.6607486.

6. Thounaojam, A. S and Dhaduk, H. L. Enhancement of seed germination in Chironji (Buchanania lanzan Spreng) through physical and chemical treatments. *Journal of Pharmacognosy and Phytochemistry*, 2020; 9(1): 1354-1359.
7. Chaudhary. S, Yadav. P, Tiwari.P., A Review on Pharmaceutical Therapy of the Buchanania (Chironji) Plant. *International Journal of Pharmaceutical Research and Applications*, 2024; 9(4): 193-200. Doi: 10.35629/4494-0904193200.
8. Wang, G., Wang, Y., Yao, L., Zhao, W. G.S., Shen, Z., Lin, Z., Liu, W., Yan, T. Pharmacological Activity of Quercetin: An Updated Review. *Evidence-Based Complementary and Alternative Medicine*, 2022; 1-12. https://doi.org/10.1155/2022/3997190.
9. Gupta, R. D., Mahant, S.A., Wankhade, P.R., Hemke, A.T., Wadher, K.J., and Umekar, M. J. Gallic Acid: A Versatile Molecule with Promising Pharmacological Effect. *International Journal of Pharmacognosy and Life Science*, 2021; 2(1): 49-56. https://doi.org/10.33545/27072827.2021.v2.i1a.27.
10. Shazia, P., Ul Haq, B. I, Rajeev, B. Kaempferol and its derivatives: Biological activities and therapeutic potential. *Asian Pacific Journal of Tropical Biomedicine*, 2023; 13(10): 411-420. Doi: 10.4103/2221-1691.387747.
11. Semwal, D. K., Semwal, R.B., Combrinck, S., Viljoen, A. Myricetin: A Dietary Molecule with Diverse Biological Activities. *Nutrients Feb*, 16, 2016; 8(2): 90. Doi: 10.3390/nu8020090.
12. Bhattacharya, A., & Patra, P. K. "Antioxidant activity of flavonoids and their glycosides: A review." *Journal of Functional Foods*, 2022; 89: 104851.
13. Wang, H., & Li, X. "Flavonoids and their anti-inflammatory properties." Comprehensive Reviews. *Food Science and Food Safety*, 2021; 20(4): 3342-3364.
14. Zhao, Y., & Zhang, L. "Flavonoids as potential anti-cancer agents: An overview." *Phytotherapy Research*, 2023; 37(1): 10-26.
15. Singh, S., Maurya, A. K., Meena, A., Mishra, N., & Luqman, S. Myricetin 3-rhamnoside retards the proliferation of hormone-independent breast cancer cells by targeting hyaluronidase. *Journal of Biomolecular Structure and Dynamics*, 2023; 1–12. https://doi.org/10.1080/07391102.2023.2256872.
16. Zhang, R., & Hu, J. "Flavonoids and their potential as anti-diabetic agents." Nutrients, 2020; 12(11): 3428.

17. Al-Ishaq, R. K., Abotaleb, M., Kubatka, P., Kajo, K., Busselberg, D. Flavonoids and Their Anti-Diabetic Effects: Cellular Mechanisms and Effects to Improve Blood Sugar Levels. *Biomolecules*, 1, 2019; 9(9): 430. Doi: 10.3390/biom9090430.
18. Yang, Z., & Xu, X. "Neuroprotective effects of flavonoids in neurodegenerative diseases." Brain Research Bulletin, 2021; 174: 226-235.
19. Singh, R., & Kapoor, R. "Cardioprotective effects of flavonoids: An overview." Frontiers in Cardiovascular Medicine, 2021; 8: 701281.
20. Kumar, S., & Singh, M. "Antimicrobial activities of flavonoids and their potential applications." Journal of Medicinal Plants Research, 2022; 16(3): 82-96.
21. Srivastava K., Tiwari M., Dubey T. and Dubey A. D-Pinitol - A Natural Phytomolecule and its Pharmacological effect. International Journal of Pharmacy and Lifesciences, 2020; 11(5): 6609-6623.
22. Akila Elias., Prasanna V Habbu., Sudhir Iliger. An Updated Review on Phyto-Pharmacological and Pharmacognostical Profile of Buchanania Lanzan: A Pharmacognostic Miracle Herb. International Journal of scientific research in Science and Technology, 2021; 8(6): 298-310. https://doi.org/10.32628/IJSRST218642.
23. Ajith, S., Krishna, V., Kumar, R. S., Kumar, V. N. M. Chemical Profiling of Buchanania Lanzan spreng Essential oil and its biological activities. *Asian Journal of Pharmaceutical and Clinical Research*, 2020; 13(12): 103-108. http://dx.doi.org/10.22159/ajpcr.2020.v13i12.39573.
24. Chaturvedi, D. S and Chaturvedi, B. Pharmacological Importance of Buchnania Lanzan Spreng. *Journal of Molecular Pharmaceuticals and Regulatory Affairs*, 2019; 1(2): 25-28. Doi: 10.5281/zenodo.3362698.