# **IJARSCT**



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

Volume 2, Issue 1, October 2022

# Review on Rawolfiaserpentina Mother Tinture

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**Abstract:** Root of sarpgandha could be a species of seed plant within the dogbane family has been traditionally employed in Ayurveda for many years to treat the variability of diseases of that at been traditionally apper in reality little the same as each other. rauvolfia is a safe and effective treatment of hypertension.much smaller dose of reserpine is required to get the antihypertensive activity.the present review focuses mainly on chemical composition, pharmacology, mechanism of action, side effects and toxicity and antihypertensive effect of Rauwolfia alkaloids. The plant provide clinician with safe and effective adjunct to high vital sign.

Keywords: Rauwolfia, Hypertension, Reserpine

#### I. INTRODUCTION

The dried root of Rauwolfia serpentine (linne) bentham ex kurz is known as rauwolfia serpentine (family: Apocynaceae). It is an upright shrub that can reach a height of one metre and has stems with cylinders. These stems are made up of and have pale barkKeywordscolouredviscous latex. The genus Rauvolfia, often written Rauwolfia, belongs to the Apocynaceae family and includes evergreen trees and shrubs known as devil peppers. In honour of Leonhard Rauwolf, the genus bears his name. Tropical regions of Africa, Asia, Latin America, and different maritime islands are where the genus is most commonly found. Due to the importance of plants as medicines, scientists have been studying their phytochemical composition. Both anthelmintic and antihypertensive medications have been made from it. It is used as an antidote for snakebite and other dangerous bug bites. Inebola, epilepsy, opacity of the cornea, cholera, fever, and diarrhoea R. Due to the presence of alkaloids, serpentine is known to correct many circulatory disorders. Although it was claimed that the entire plant contained these alkaloids, root cork had the highest concentration, including reserpine.





## **Advantages**

- Stomach problems, relieves stress and anxiety, and regulates high blood pressure.
- Additionally helpful in treating menstruation issues is Rauwolfiaserpentina.
- Manages asthma.
- Good for the heart.
- Aids in sleep.

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### **Disadvantages**

- Sensitive to environmental factors and ontogenic changes.
- Long-lasting.
- Cytosolic compounds may cause flow cytometry's quantitative DNA staining to malfunction...

#### II. MATERIAL AND METHODS

Large tap roots with few lateral secondary rootlets are used for root collection.

#### Formulation Table

Ingredients	Quantity Taken	Role
Rauwolfia	20gm	Antihypertensive
Alcohol	20 ml	Solvent

#### Formulation:

- 1. Cold maceration was used to create Rauwolfiaserpentina Benth's mother tincture.
- 2. In this experiment, 99 parts of alcohol and 1 part coarse Rauwolfiaserpentina powder were macerated for 8 days, occasionally shaken, and then filtered
- 3. Made the mother tincture, put it in a container, and conducted an assessment.0gmAntihypertensiveer Tincture

#### **Evaluation Test**

- 1. Characteristics: A brownish odour and mother tinture were noted for colour.
- 2. Calculating PH: Using buffer tablets with PH values of 4, 7, and 9, the common logarithm of the reciprocal of the hydrogen ion concentration, expressed in g/liter, is used to calculate the PH of an aqueous liquid.
- **3.** Determine Total Solid: When the recommended amount of mother tinture is dried to constant weight measurement accuracy, 10 ml of mother tinture is evoporated at the lowest temperature feasible until the alcohol is removed and the residue seems to be dry.
- **4.** Determining Alcohol Content: In homoeopathy, alcoholic drug preparations are known as tinctures. The mother tincture of Rawofia was made by macerating 20g of coarse Rauwolfia powder (40 mess) for eight days with 95 vol% alcohol to create 20 ml of mother tincture (drug strength 1/10).

#### III. CONCLUSION

Reserpine, a single, pure, crystalline alkaloid found throughout the entire root, cannot cause harm when combined with other alkaloids found there. The hypotensive effects of reserpine can be achieved with much smaller dosages of the drug. It has a protracted effect. Even yet, rauwolfinine's hypotensive effects are less pronounced than those of reserpine. Reserpine is a more potent alkaloid than rescinnamine. The fact that it has a stronger and longer-lasting hypotensive effect at lower dosages.

#### **ACKNOWLEDGEMENT**

We thanks and gratitude to Trustee of Samarth Rural Educational Institute's and team of Samarth Institute of Pharmcy, Belhe, Pune with their valuable guidance and support.

## REFERENCES

- [1]. Mullar J. M. schittler E, et al, "reserpine, Der sedative Wrikstoffrauwolfia serpentine (benth) experientia" 1952,8: 338.
- [2]. Deshmukh S.R. Dhanshree SA, patil BA, Extraction and Evaluation of indole alkaloids from rauwolfiaserpentina For their antimicrobial and antiproliferative activities, International journal of pharmacy and pharmaceutical Sciences, 4(5), 2012, 329-334.
- [3]. Tyler V.E.,Brady L.R., Robbers J.E.,Pharmacognosy, 9<sup>th</sup> edition, Lea and Febiger,Philiadelphia,1988,222-Copyright to IJARSCT DOI: 10.48175/568 413

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- [4]. Vakil R.J., "Rauwolfiaserpentina in the treatment of High Blood Pressure: Review of the Literature", Circulation, 1955, 12:220-229.
- [5]. Endress ME, Bruyns PV. A revised classification of the Apocynaceaes.l. Bot Rev. 2000;66(1):1–56.
- [6]. E.G. Mc Queen, A.E. Doyle, et al, "Mechanism of Hypotensive Action of Reserpine, an alkaloid of Rauwolfiaserpentina", Nature, 1954,174, 1015.
- [7]. Schuldiner S, Liu Y, Edwards RH. Reserpine binding to A vesicular amine transporter expressed in ChineseHamster ovary fibroblasts. J Biol Chem. 1993;268(1):29–34.
- [8]. Wimalasena K. Vesicular monoamine transporters: Structure-function, pharmacology, and medicinalChemistry. Med Res Rev.2011;31(4):483–519.
- [9]. Panwar GS, Guru SK. Alkaloid profiling and estimation Of reserpine in Rauwolfiaserpentina plant by TLC, HP-TLC and HPLC. Asian J Plant Sci. 2011;10(8):393–400.
- [10]. Jerie P. Milestones of cardiovascular therapy, IV: Reserpine [in Czech] CasLekCesk. 2007;146(7):573–577.
- [11]. Bein, H.J. "ZurPharmakologie des Reserpine, einesNeuenAlk.ausRauwolfiaserpentina (Benth)", Experientia, 1953, 9: 1073.
- [12]. Goto, Y., Personal Communication from Tokyo, Japan.
- [13]. VakilR., "Hypotensive action of other RauwolfiaSerpentina alkaloids: a clinical report", J. Indian M.A., 1953, 23: 97-102.
- [14]. Guy Lemieux, M.D., Andre Davignon, M.D., et al," Treatment of arterial hypertension with Rescinnamine, A new alkaloid isolated from Rauwolfia serpentina",956, 74, 145.
- [15]. Yarnell E, Abascal K. Treating hypertension Botanically. Altern Complement Ther. 2001;7(5):284–290.
- [16]. Krogsgaard AR. The effect of reserpine on the Electrolyte and fluid balance in man. Acta Med Scand. 1957;159(2):127–132.
- [17]. Baumeister AA, Hawkins MF, Uzelac SM. The myth of Reserpine-induced depression: role in the historical Development of the monoamine hypothesis. J HistNeurosci. 2003;12(2):207–220.

DOI: 10.48175/568