

EFFECT OF MUNDI AND NIRGUNDI ON VISHAADA (DEPRESSION) – A LITERARY REVIEW

N Deepika¹, B R Lalitha², G K Chaithrika³, Sreekumar Aathira⁴

¹PG Scholar, ²Professor and Head, ³PG Scholar, ⁴PG Scholar,
Department of Dravyaguna Vigyana, Government Ayurveda Medical College, Dhanwantri Road, Bengaluru-560009, Karnataka, India

Email: deeps.ayu@gmail.com

ABSTRACT

There are myriads of drugs to manage *Manovikaras* like *Vishaada* (Depression), *Unmaada*, *Apasmara* (Epilepsy) etc. *Mundi* and *Nirgundi* are important drugs having pharmacological activities like *Medhya* (Nootropics), *Smritiprada* (Memory Enhancer), *Vaatahara* etc. *Vishaada* (Depression) is one among the *Vata-nanatmaja Vikara*¹ and is also described as a cause for *Manasika Vikara*². Hence suitable *Vatopakramas* along with the drugs which work on *Manovaha Srotas*, which act as *Medhya*, *Hridya* (cardio-protective), *Smritiprada* will help in checking *Mano Doshas* and at the same time pacify *Vaata* and *Kapha doshas*. There is description of more than 25 *Medhya* drugs available in the classics. In this present article an effort is put forth to understand the role and efficacy of *Mundi* and *Nirgundi* in treatment of *Vishaada*.

Key words: *Mundi, Nirgundi, Medhya, Vishaada, Depression, Ayurveda*

INTRODUCTION

Mundi and *Nirgundi*, both are herbal origin drugs used in management of many diseases and conditions. The botanical source of *Mundi* is *Sphaeranthus indicus* Linn. of the family Asteraceae. It is an aromatic annual spreading herb. The plant is found throughout India. It grows as a weed in paddy fields and thrives well after harvest of paddy. *Mundi* has a wide range of reported benefits. The botanical source of *Nirgundi* is *Vitex negundo* Linn of family Verbinaceae. It is an aromatic shrub and is used in many countries, folklores in wide range of diseases like *Kushta* (Skin diseases), *Gulma*, *Galaganda* (Goitre), *Apasmara*, *Medorogas* etc. *Vishaada* or Depression is a state of low mood and aversion to activity that can affect a

person's thoughts, behavior, feeling and physical well-being. It may include feeling of sadness, anxiety, emptiness, hopelessness, worthlessness, guilty, irritability or restlessness etc. WHO estimates that 4.3% of world population is suffering from depression. *Vishaada* like any other *Manovikaaras*, needs all 3 modes of *Chikitsa* viz. *Yuktivyapashraya* (Treatment with Medicines), *Daivavyapashraya* (Treatment with Spiritual principles) and also *Sattwavajaya chikitsa* (Psychotherapy). Vitiated *Vaata* and *Kapha* are considered as responsible *Doshas* in causing *Vishaada* along with *Agnimandya* (Poor Digestion). Hence drugs which are *Vata-kaphahara*, which act in *Manovaha Srotas* and improve *Agni* (Digestion capac-

ity) can be considered as promising drugs in treatment of *Vishaada*. Since *Medha* (Gathering and Storing Capacity) is one of the intrinsic dimensions of *Manas*, and regulates other factors like *Dhee* (Intellect), *Dhruti* (Stability) and *Smriti* (Memory), it can be inferred that it has crucial role in cause and cure of *Manasa Vikaras* (Mental Disorders). So *Medhya dravyas* may have a good impact in treatment of *Manasika Vikaras* like *Vishaada*. Both *Mundi* and *Nirgundi* have been mentioned as *Medhya* in *Nighantus*.^{1,2,3} This article is an effort to analyze the efficacy of *Mundi* and *Nirgundi* in treating *Vishaada* through its *Rasapanchaka*, and phytoconstituents.

REVIEW ON CONCEPT OF VISHAADA:

The word *Vishaada* is derived from the root ‘*Shadalru – Visharanagatyavasaadaneshu*’ meaning deterioration, and state of desolation.⁴ *Charaka* mentions *Vishaada* as *Vaata Naanatmaja* disease, also in *Agrya Prakarana*, “*Vishaado Rogavardhanaanaam*” (*Vishaada* as the prime among which increases any disease state). Also, in *Anumana Pareekshya Bhava*, *Charaka* mentions that *Bhaya* (fear) can be assessed by the signs of *Vishaada* and *Dhairya* (courage) by absence of *Vishaada*⁵ *Sushruta* mentions *Vishaada* as one of the *Manasa Vyadhi*. *Dalhana* commented *Vishaada* as a condition originated from apprehension of failure, resulting in incapability of mind and body to function properly, with significant reduction in activity. While explaining *Vaidya Gunas*, it is mentioned that the word *Shoora* as “*Vishaadarahita*” i.e. bravery is the characteristic seen in the absence of *Vishaada*. While explaining *Satwika Rajasika* and *Tamasika Purusha Lakshana*, it is mentioned that

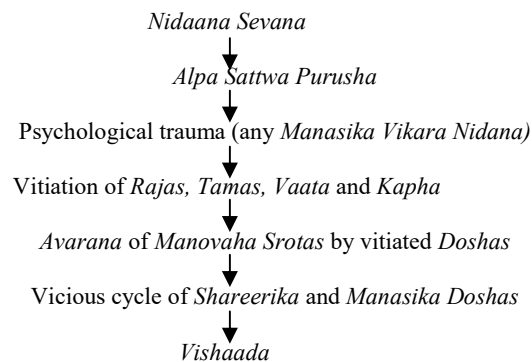
“*Vishaaditvam*” as one of the *Lakshana* of *Tamasika Purusha*.⁶ *Vagbhata* mentions *Vishaada* as one of the *Lakshana* of *Vaatajwara*. *Arunadutta* explains as state of deep sadness and *Hemadri* explains it as state of depression. *Vagbhata* has stated that person with predominant *Tamasa Guna* are more prone to suffer from *Vishaada*.⁷ *Monier Williams* explains the meaning of *Vishaada* as Drooping state, Lassitude, languor.⁸

Samprapti of Vishaada: *Samprapti of Vishaada* can be understood by the available information from the texts. When an *Alpasattwa* person faces psychological trauma like fear, loss and failure, they start overthinking about the same continuously. This causes increase of *Tamas*, vitiation of *Rajas*, *Vata* and *Kapha Doshas*. Vitiating *Vata* and *Kapha* do *Avarana in Manovaha Srotas* along with *Tamas*. Thus, creating a vicious cycle of vitiating *Shareera* and *Manasika Doshas*. Resulting in abnormal over thinking, grief, lack of interest in anything, feeling of worthlessness etc called as *Vishaada*.

Samprapti ghataka of vishaada:

Dosha: Tama, Raja (Manasika Doshas); Vaata (Vyaana, Prana, Udaana), Saadhakapitta, Tarpaka, Avalambaka Kapha, Dooshya: Rasa, oja, Agni: Maandya /Visama, Srotas: Manovaha, Rasavaha, Srotodushti: Sanga (obstruction), Udbhavasthana: Hrudayam, Sanchaara sthanam: Manovaha, Rasavaha Srotas Adhistanam: Hridaya, Vyaktasthana: Mana, Shareera, Sadhyasadyata: Krichrasadhya, Roga swabhava: Chirakari Upadrava: Sarvaroga Vriddhikara (increases all other diseases), Unmada etc other Manasika diseases, Pandu, Sthoulya Karshya etc Shareera diseases.

FLOW CHART SHOWING SAMPRAPTI OF VISHAADA^{1,2,3}



Rasapanchaka of Mundi and Nirgundi:^{1,2,3} *Mundi* is having *Katu Tikta Kashaya Madhura Rasa, Laghu Ruksha Gunas, Ushna Virya, Katu Vipaka*
Nirgundi is having *Katu Tikta Kashaya Rasa; Laghu Ruksha Gunas and Ushna Virya, Katu Vipaka*.

DOSHAGHNATA^{1,2,3}

Mundi is having *Vata-Kaphahara* and *Raktashodhana* properties.

Nirgundi is having *Vata-Kaphahara* properties.

KARMAS^{1,2,3}

Mundi is having *Medhya, Deepana, Rochana, Rasayana and Krimighna Karma*.

Nirgundi is having *Medhya, Smritiprada, Deepani, Kushthaghna, Krimighna, Shothahara, and Shula Hara Karma*.

ROGAGHNATA^{1,2,3}

Mundi is mainly used in *Apasmara, Galaganda, Apache, Shleepada* (Filariasis), *Aruchi, Meha* (Diabetes mellitus), *Pandu*.

Nirgundi is mainly used in *Vatavyadhi, Karnaroga* (Ear diseases), *Krimi* (Worm infestations), *Kushta, Rajayakshma* (Tuberculosis), *Gulma Chikitsa*.

Phytoconstituents:^{9,10}

Mundi leaves contain **EUGENOL**, Maltose, Carbohydrates, Ocimene, Monoterpene, Arabinose –D, Geraniol, Rhamnose, Flavonoid, 7-0-Beta-D-Galactoside, Cadinene, Sesquiterpene, Frullanoide, Illicic acid, Sphaeranthanolide.

Nirgundi leaves contain glycoside 2's-p-hydroxybenzoyl mussaenosidic acid, 2 glycoside iridoids viz., nishindasida and negundoside, **LUTEOLIN**, Vitexin, Protocatechuic acid, oleanolic acid, flavonoids, Angusid, casticin, vitamin C, nishindine.

RESEARCH PROFILE^{9,11,12,13,14,15,16,17,18,19}

Researches already done on anti-convulsant, anti-amnesiac, anti-depressant, anxiolytic activities of *Mundi and Nirgundi*

- Anti-convulsant activity of whole parts of *Sphaeranthus indicus* Linn. extract in Experimental Mice.
- Extract of *Sphaeranthus indicus* against experimentally induced anxiety, depression and convulsion in rodents.
- Appraisal of scopolamine-induced anti-amnesiac effect of *Sphaeranthus indicus*.

- An experimental evaluation of anticonvulsant activity of *Vitex negundo*.
- Anxiolytic activity of *Vitex negundo* Linn. in experimental models of anxiety in mice.
- Effect of *Vitex negundo* on oxidative stress.

Antidepressant activity of Eugenol and Luteolin present in *Mundi and Nirgundi* respectively.

- Eugenol exhibits antidepressant like activity in mice and induces expression of metallothionein-III in hippocampus.
- Luteolin mediates the antidepressant like effects of *Cirsium japonicum* in mice, possibly through modulation of the GABA-A receptor.

DISCUSSION: 18,19,20,21

Mundi and Nirgundi have ideal, promising efficacy in managing *Vishaada*, as they have *Vatahara, Medhya, Smritiprada* etc *Karmas*. As *Vishaada* is *Vata Nanatmaja Vyadhi*, suitable *Vata Upakramas* should be adopted. Drugs which are *vata-kaphahara*, which acts in *Manovaha Srotas* and improves *Agni* can be considered as promising drugs in treatment of *Vishaada*. Both *Mundi and Nirgundi* being *Katu, Tikta and Ushna Veerya* endowed the effect of *Agnideepana* and *Amapachana* which is very necessary in this disease as *Avarana* could be the probable factor for vitiation of *Vata* in *Manovahasrotas* causing *Vishaada*. Also, as *Tikta rasa* is having *Medhya Karma*⁷, it further becomes more potent in managing *Mano Vikaras*. They might act as serotonin re uptake inhibitors. Both *Mundi and Nirgundi* being *Medhya* could work well in *Manovaha Srotas* in enhancing all the intrinsic dimensions of *Manas* like *Dhee, Dhriti, Smriti*. Both *Mundi and Nirgundi* are rich in flavonoids and alkaloids which in turn have anti-oxidant and anti-depressant, CNS stimulant activities and are probably nootropics^{9,10}. *Mundi* is having eugenol, a member of phenols which is proven to be having antidepressant like activities through experimental studies. *Nirgundi* is having Luteolin, a common flavonoid which is also proven to be having antidepressant like activities through experimental studies.

CONCLUSION

In current scenario, depression is one among the most prevalent disease and WHO identifies it as one of the serious global problem. *Mundi* and *Nirgundi* both have potential *Medhya* activity which encompasses nootropic activity, apart from being *Vaatahara* and *Smritida*.

SCOPE FOR FURTHER STUDY

Considering the properties and the successful previous experimental trials of *Mundi* and *Nirgundi*, it will be wise to carry out further clinical trial on patients of *Vishaada* / clinical depression with *Mundi* and *Nirgundi Ghrita* and other dosage forms.

REFERENCES

1. *Kaiyadeva Acharya, Kaiyadeva Nighantu, Pathyapattayavibodhaka*, Sampadde Acharya Priyavrit Sharma and Guruprasad Sharma, Varanasi, Chowkambha Orientalia, 1979. Tpg-696;
2. *Bhogika Mahendra, Dhanwantari Nighantu*, Commentary by Sharma Guruprasad, Edited by Sharma Priyavrat, Varanasi, Chowkambha Orientalia Publication, 2nd edition, 1998.,Tpg- 360
3. *Shodala, Shodala Nighantu*, Commentary by Pandey G, 1st ed, Dwivedi RR editor, Varanasi: Chowkambha Sanskrit series office; 2009, P.91
4. *Raja radhakanthdev. Shabdakalpadruma*. 4th volume. 1stedition. Dehli. Nagapublisher; 3rd reprint 2006; Tpg315.
5. *Agnivesha. Charaka samhita- Agnivesha* treatise refined and annotated by *Charaka*, redacted by *Dridhabala* Ayurveda Deepika commentary by *Chakrapanidatta*, edited by Yadavji Trikamji Acharya . Varanasi: Chaukhamba Prakashana; reprint 2011, Tpg 738, 56-57,
6. *Sushruta, Sushruta Samhita*,Vol I (Edited with Ayurveda Tattva Sandipika) by Shastri Kaviraja Ambikadutta, 12th ed.Varanasi: Chaukhamba Sanskrit Sansthan 2001, Tpg:879
7. *Vagbhatacharya, Ashtanga Hridayam with Sarvangasundhara of Arunadutta and Ayurved Rasayana of Hemadri*, collated by Dr.Anna Moreswar Kunte and Krishna Ramachandra Shastri Navre,Varanasi:Chukhamba surabharathi prakashan,
8. William MM. A Sanskrit English Dictionary. 1st edition, Delhi: Motilal Banarasidas Publishers Pvt Ltd; 1899. P996
9. Ayurvedic Pharmacopiea of India, 1st edition, Government of India, Ministry of Health & Family Welfare, Department of ISM & H, Delhi, Vol 4.
10. Quality Standards of Indian Medicinal Plants, 5th edition, Indian Council of Medical Research, New Delhi.
11. jprsolutions.info/article_detail.php?article_id=929.
12. Galani Vj, Patel BG (2010), Effect of Hydroalcoholic extract of *Sphaeranthus indicus* against experimentally induced anxiety, depression and convulsions in rodents. *Int J Ayurveda Res* 1(2):87-92.
13. http://www.google.com/amp/s/www.researchgate.net/publication/216669489_Appraisal_of_scopolamine-induced_antiamnesic_effect_of_sphaeranthus_indicus_in_mice/amp.
14. Das biswadeep et al, Wound healing potential of vitex negundo. Linn in experimental animals, International journal of pharmacy and pharmaceutical sciences, 4(4):543-546.
15. Zaware.B.Bharati et al, Potential of Vitex negundo roots in the treatment of ulcerative colitis in mice, Pubmed, 2011, Aug;49(8):874-8.
16. https://scholar.google.co.in/Scholar?hl=en&as_sdt=0,5&as_vis=1&qsp=2&q=anti-amnesic+activity+%22vitex+negundo%022&qst=b#d=gs_qabs&p=&u=%023p%03D9brn_tWPI8J11 “
17. https://scholar.google.co.in/scholar?q=related:9brn_tWPI8stcho|ar.google.com/&hl=en&as_sdt=0,5#d=gs_qabs&p=&u=%023p%03DNFaYXFP8yuMJ “
18. <https://www.sciencedirect.com/topics/chemistry/luteolin>
19. <https://pubchem.ncbi.nlm.nih.gov/compound/eugenol>
20. <https://link.springer.com/article/10.1007%2Fs12272-013-0229-9>
21. <https://www.sciencedirect.com/science/article/pii/S006899304005116?via%3Dihub>

Source of Support: Nil

Conflict Of Interest: None Declared

How to cite this URL: N Deepika et al: Effect Of Mundi And Nirgundi On Vishaada (Depression) – A Literary Review. International Ayurvedic Medical Journal {online} 2019 {cited October, 2019} Available from: http://www.iamj.in/posts/images/upload/1880_1883.pdf