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

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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 Vikara¹ and is also described as a cause for Manasika Vikara². 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. Yuktiyapashraya (Treatment with Medicines), Daivavyapashraya (Treatment with Spiritual principles) and also Sattwavayaya 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 Dhairyas (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 Shoor as “Vishaadarahita” i.e bravery is the characteristic seen in the absence of Vishaada. While explaining Satvika Rajasika and Tamasika Purusha Lakshana, it is mentioned that “Vishaaditwam” 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 Dosha. Vitiated Vata and Kapha do Avarana in Manovaha Srotas along with Tamas. Thus, creating a vicious cycle of vitiated 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 Dosha); Vaata (Vyaana, Prana, Udaana), Saadhakapitta, Tarpaka, Avalambaka Kapha, Dooshya: Rasa, oja, Agni: Maandy /Visama, Srotas: Manovaha, Rasavaha, Srotodushti: Sanga (obstruction), Udbhavasthaana: Hrudayam, Sanchoara sthanam: Manovaha, Rasavaha Srotas Adhishthanam: Hridaya, Vyaktasthana: Mana, Shareera, Sadhyasadhyata: 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

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Nidaana Sevana
  ↓
Alpa Sattwa Purusha
  ↓
Psychological trauma (any Manasika Vikara Nidaana)
  ↓
Vitiation of Rajas, Tamas, Vaata and Kapha
  ↓
Avarana of Manovaha Srotas by vitiated Doshas
  ↓
Vicious cycle of Shareerika and Manasika Doshas
  ↓
Vishaada
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Rasapanchaka of Mundi and Nirgundi: 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.

DOSAGHNATA
Mundi is having Vata-Kaphahara and Raktashodhana properties.
Nirgundi is having Vata-Kaphahara properties.

KARMAS
Mundi is having Medhya, Deepana, Rochana, Rasayana and Krimighna Karma.
Nirgundi is having Medhya, Smritiprada, Deepani, Kushthaghna, Krimghna, Shothahara, and Shula Hara Karma.

ROGAGHNATA
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:
Mundi leaves contain Eugenol, Maltose, Carbohydrates, Ocimene, Monoterpene, Arabinose –D, Geraniol, Rhamnose, Flavonoid, 7-0-Beta-D-Galactoside, Cadinene, Sesquiterpene, Frullanoide, Ilicic 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
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:
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, 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. 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.

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