



Review Article

A CONCEPTUAL STUDY ON OOTHU CHIKITSA OR BLOWING THERAPY- AN EMERGENCY TREATMENT PROCEDURE

Aswathi G<sup>1\*</sup>, Sreevidya C.G<sup>2</sup>, Sirosha M<sup>3</sup>

\*<sup>1</sup>Assistant Professor (on contract), <sup>2</sup>Professor and HOD, <sup>3</sup>Associate Professor, Department of Agadatantra, Government Ayurveda College, Tripunithura, Kerala, India.

Article info

Article History:

Received: 29-09-2022

Revised: 16-10-2022

Accepted: 07-11-2022

KEYWORDS:

Oothu chikitsa,  
Blowing therapy.

ABSTRACT

Kerala is exceptional for the practice of *Visha chikitsa* from time out of mind. *Keraleeya visha chikitsa grandhas* such as *Prayoga sammuchayam* and *Kriya kumudi* point out distinctive treatment procedure for snake envenomation such as *Karu prayogam*, *Vella prayogam*, *Oothu chikitsa* etc. Among this most handy and easy treatment procedure, *Oothu chikitsa* or blowing therapy which is mentioned for immediate stabilization of the patient from severe cobra envenomation is discussed here. The present study evaluates the role of Ayurveda in emergency management. This procedure, in which three persons are made to blow over vertex and both ears for 150 times by chewing certain drugs such as *Viswa*, *Dusparsa*, *Maricha* and *Visha vega* in equal quantities are indicated in the initial manifestation of snake bite including altered consciousness. On evaluation, the volatile components of these drugs are found to act on CNS. In this era of emergency medicine, exploration of Ayurvedic emergency treatment procedure is very much important. This emergency treatment procedure can be conceptually applied in the altered consciousness other than snake bite such as altered consciousness arising due to neurological and metabolic causes, diffuse physiological brain dysfunction as seen in certain drug poisoning, alcohol etc. This study aims at application of blowing therapy, indicated in initial manifestation of cobra envenomation and helps the patient to stabilize from a level of altered consciousness in the context of altered consciousness in conditions other than snake bite.

INTRODUCTION

The practices of *Visha chikitsa* were flourishing in Kerala from time immemorial. Many *Visha vaidyas* in Kerala have practiced different types of procedures in the management of snake envenomation which are explained in *Keraleeya visha chikitsa* books. *Oothu chikitsa* is one such procedure which is indicated, when *Sarpa visha* is situated in first three *Dhatus*, especially cobra envenomation. The *Lakshanas* seen in first three *Dhatus* include increased temperature, swelling, blackish discolouration, sleepiness and embarrassment<sup>[1]</sup>.

During these initial manifestations some emergency treatment procedures should be adopted to stabilize the patient and to protect the vital organs such as brain. By this procedure the volatile components of *Vishahara* drugs reaches the circulation and helps the victim to return to a normal conscious level. Ayurveda explain many emergency treatment techniques and one such is *Oothu chikitsa*. This itself is the present day relevance of *Oothu chikitsa* or Blowing therapy. Conceptually it can be adopted as an emergency treatment procedure in altered consciousness in conditions other than snake envenomation. In this study an overview of the procedure *Oothu chikitsa*, its action based on various hypothesis and introducing this procedure to the platform of emergency medicine is humbly attempted.

**Oothu chikitsa or Blowing Therapy**

This procedure is said in *Keraleeya visha chikitsa grandhas* named "*Prayoga Samuchayam*"<sup>[2]</sup> and "*Kriya kumudi*"<sup>[3]</sup>. It is the process in which three persons are made to blow at both ears and vertex of

Access this article online

Quick Response Code



<https://doi.org/10.47070/ijapr.v10i10.2575>

Published by Mahadev Publications (Regd.)  
publication licensed under a Creative  
Commons Attribution-NonCommercial-  
ShareAlike 4.0 International (CC BY-NC-SA 4.0)

the bite victim simultaneously, by chewing certain drugs. The position of patient can be either sitting/lying and three persons are made to chew dried rhizome of *Viswa* (*Zingiber officinale*), dried fruit of *Maricha* (*Piper nigrum*), root of *Dusparsa* (*Tragia involucrate*), root of *Vishavega* (*Aristolochia indica*) in equal quantities and then blow simultaneously over both ears and vertex for 150 times. In *Kriya Koumudi*, a combination of *Viswa* and *Vishavega*, *Trikatu* and *Thrittapatra*, *Vishavega*, *Dusparsa* and *Vacha* are also mentioned for the purpose of chewing.

#### Indication

- Effect of *Visha*, when limited to first three *Dhatus* (*Charmam, Raktham, Mamsam*)
- When patient falls unconscious

- Severe envenomation
- Heaviness of head
- Delay in response to verbal and physical stimuli
- Drowsiness
- Drooping of eyelid
- Numbness over tongue, mouth and scalp.
- Pain all over the body
- Paralysis of jaw, tongue, larynx and neck.
- Head ache
- Dizziness, vertigo
- Excessive salivation, formation of mucous and fluid in the chest, eyes etc.
- Particularly in stages of *Vata kapha* predominance

#### Drugs used in *Oothu chikitsa*

Drugs	Properties	Uses	Volatile Components
<i>Viswa</i> <sup>[4]</sup> ( <i>Zingiber officinale</i> , Zingiberaceae)	Thermogenic, stimulant	Dropsy, cephalalgia, "Nana dosha samudbhoothanam sirorujam hanthi theevratharam." (ch.d) <i>Kaphavatahara, Ushna, Teekshna</i>	arcurcumene farnesene, bisabolene Sesquiphellandrene
<i>Dusparsa</i> <sup>[5]</sup> ( <i>Tragia involucrate</i> , Euphorbiaceae)	Cooling effect, anti-histaminic activity	"Mohavinasini" (dh.ni) "Nihanthi pitta asra kapha medo mada braman" (kai.ni) <i>Laghu vatavinasini</i> (dh.ni)	Ar-tumerone Anthracenedione 1,8 Friedelone 3
<i>Maricha</i> <sup>[6]</sup> ( <i>Piper nigrum</i> , Piperaceae)	Stimulant, Piperine increases the amount of serotonin and beta endorphin in the brain, Anti-oxidant, anti-microbial, <i>Laghu, Teekshna, Ushna, Pramathi, Kapha vatahara.</i>	Anti allergic and anti poisonous activity	Beta caryophyllene Germacrene D, Limonene, Betapinene, Alphaphellandrene, Alpha humulene
<i>Visha vega</i> <sup>[7]</sup> ( <i>Aristolochia indica</i> , Aristolochaceae)	Thermogenic <i>Laghu guna</i>	All types of poisonous bite and sting "Garudi sarvavishajit kushtaghni kapha vataha" ( <i>hridaya priya</i> )	Transpinocarveol alpha-pinene pinocarvone betapinene limonene, sesquiterpene
<i>Vacha</i> ( <i>Acorus calamus</i> , Araceae) <sup>[8]</sup>	Nerve tonic	Depression, mental disorder "Medhya jeevani, Vaagsw-araprada Hanthi unmadam apasmaram raksho janthu kaphanilan" <i>Vatakaphahara, Laghu, Teekshna, Pramathi</i>	Acorenone Isoshyobunone Calamendiol
<i>Trittapatram</i> <sup>[9]</sup> ( <i>Ocimum tenuiflorum</i> Lamiaceae)	"Visha nasini" (m.ni)		Monoterpenes camphor cineole estragol eugenol Sesquiterpenes Germacrene Caryophyllene bisabolene

**Benefits**

- Emergency treatment
- Economical
- Can be practiced with minimum requirements and man power.

**DISCUSSION****Mechanism of Action**

There are many procedures mentioned in Ayurveda, where drugs are administered through nasal aperture i.e., *Nasya*, through ears i.e., *Karna poorana*, through vertex i.e., *Thalam* and *Upadhana karma*. In *Nasya* and *Karna poorana*, the effect of drugs are reaching the brain through *Srungataka marma*<sup>[10]</sup> which is classically described as situated within the confluence of *Siras* (vessels) nourishing the *Ghrana* (nose), *Srotra* (ears), *Akshi* (eyes) and *Jihwa* (tongue). Many researchers have reached at the conclusion that only cavernous sinus seems to have vascular connection directly or indirectly with these sense organs<sup>[11]</sup>. Cavernous sinus is an important pathway to brain. Similarly the action of *Oothu chikitsa* can be explained by following hypothesis.

**Hypothesis**

1. The volatile components in the drugs are absorbed through tympanic membrane (trans tympanic absorption) and reaches the naso pharynx via Eustachian tube, from where it enters nasal vein which is connected to the cavernous sinus through facial vein and inferior ophthalmic vein. Cavernous sinus is nothing other than *Srungataka marma*, an important vital point in head.
2. Blow over the vertex causes absorption of volatile components through vertex to the superficial veins of scalp.
3. Pressure difference over ear drum causes vagal nerve stimulation which modulates mood.
4. Drugs used in this procedure contain many chemical constituents which has action on brain. Anti oxidative, anti inflammatory and neuro protective effect of sesquiterpenes present in *Visha vega* and *Thritra patram* is published in European journal of pharmacology.<sup>[12]</sup>

The ability to pass blood brain barrier was already proven for Pinocarvone<sup>[13]</sup> in *Visha vega*, sesquiterpinoids<sup>[14]</sup> in *Visha vega* and *Thritra patra*, Ar-tumerone<sup>[15]</sup> present in *Dusparsa*, farnesene<sup>[16]</sup> in *Viswa*, Limonene<sup>[17]</sup> in *Maricha*, monoterpenes,<sup>[18]</sup> estragol<sup>[19]</sup>, and euginol<sup>[20]</sup> in *Thrittapatram*. Studies show that Ar tumerone has anti-depressive activity in mice<sup>[21]</sup>. Lipophilicity of farnesene<sup>[22]</sup> and limonene<sup>[23]</sup> was also proven.

**How Oothu chikitsa can be an emergency procedure?**

Let us consider the patients presenting with a spectrum of altered or impaired consciousness, which

implies reduced alertness or awareness or both or coma, i.e., completely unaware patient not responding to external stimuli. This occur due to diffuse insult to both cerebral hemisphere or disruption of ascending reticular activating system in midbrain and pons.<sup>[24]</sup> Thalamus play a crucial role in maintaining arousal. In short, this treatment procedure can be conceptually applied in unconsciousness arising due to neurological and metabolic causes, diffuse physiological brain dysfunction as seen in certain drug poisoning, alcohol etc.

**CONCLUSION**

Emergency management technique has a vital part in all medical conditions. Without such procedures patient may not survive in some critical conditions. Modern emergency management technique like CPR, Artificial respiration etc are very much popular now days. Role of Ayurvedic procedure in emergency management is actually unexplored. Even though it is indicated in *Sarpa chikitsa*, it can be suggested as an emergency treatment procedure in Ayurveda which help to return to the normal conscious level in condition other than snakebite such as loss of consciousness in association with neurological and metabolic causes, diffuse physiological brain dysfunction etc.

**REFERENCES**

1. Kochunni thampuran, prayoga samuchayam, 1<sup>st</sup> edition, Thrissur, Sulabha printers, November 1999, pg.no:38
2. Kochunni thampuran, prayoga samuchayam, 1<sup>st</sup> edition, Thrissur, sulabha printers, November 1999, pg.no:43
3. V.M.Kuttykrishna Menon, Kriya koududi, 1<sup>st</sup> edition, Kottayam, Sahithya pravarthaka co-operative society Ltd, November 1986, pg no:42
4. Arya vaidya sala kottackal, Indian medicinal plants, volume 5, Reprint edition 2008, Hyderabad, University press private limited, pg no.431
5. Arya vaidya sala kottackal, Indian medicinal plants volume 5, Reprint edition 2008, University press private limited, pg no.304
6. Arya vaidya sala kottackal, Indian medicinal plants volume 4, Reprint edition 2007, University press private limited, pg no.297
7. Arya vaidya sala kottackal, Indian medicinal plants volume 1, Reprint edition 2007, University press private limited, pg no.199
8. Arya vaidya sala kottackal, Indian medicinal plants volume 1, Reprint edition 1994, 1996, 2003, 2005, 2007, University press private limited, pg no.51
9. Arya vaidya sala kottackal, Indian medicinal plants volume 4, Reprint edition 2013, University press private limited, pg no.168



10. Pandit Hari sastry bhishakacharya, Ashtanga Hridayam, Varanasi, Choukambha Krishnadas academy, 2006 pg.no:412/34
11. **Kulkarni BG and Kanthi GM (2017)**; Srungataka Marma and its Vulnerability? A Review. *Int.J. of Adv. Res.* 5 (Apr). 628-634]
12. Solomon K.S. Amoah, Maria Tereza Dalla Vecchia, Beatriz Pedrini, Gabriela Lazzarotto Carnhelutti, Ana Elisa Gonçalves, Diogo Adolfo dos Santos, Maique W. Biavatti, Márcia Maria de Souza, Inhibitory effect of sesquiterpene lactones and the sesquiterpene alcohol aromadendrane-4 $\beta$ ,10 $\alpha$ -diol on memory impairment in a mouse model of Alzheimer, *European Journal of Pharmacology*, Volume 769, 2015, Pages 195-202, <https://doi.org/10.1016/j.ejphar.2015.11.018>.
13. Sakhteman A, Pasdaran A, Afifi M, Hamedi A. An Assay on the Possible Effect of Essential Oil Constituents on Receptors Involved in Women's Hormonal Health and Reproductive System Diseases. *J Evid Based Integr Med.* 2020 Jan-Dec; 25:2515690X20932527. doi: 10.1177/2515690X20932527.
14. Chadwick M, Trewin H, Gawthrop F, Wagstaff C. Sesquiterpenoids lactones: benefits to plants and people. *Int J Mol Sci.* 2013 Jun 19;14(6):12780-805. doi: 10.3390/ijms140612780. PMID: 23783276; PMCID: PMC3709812.
15. Hori Y, Tsutsumi R, Nasu K, Boateng A, Ashikari Y, Sugiura M, Nakajima M, Kurauchi Y, Hisatsune A, Katsuki H, Seki T. Aromatic-Turmerone Analogs Protect Dopaminergic Neurons in Midbrain Slice Cultures through Their Neuroprotective Activities. *Cells.* 2021 May 3; 10(5): 1090. doi: 10.3390/cells10051090. PMID: 34063571; PMCID: PMC8147616.
16. Neutrophil Immunomodulatory Activity of Farnesene Component of *Artemisia dracunculus* Essential Oils <https://www.researchgate.net/publication/360840677>
17. O'Hara ME, Fernández Del Río R, Holt A, Pemberton P, Shah T, Whitehouse T, Mayhew CA. Limonene in exhaled breath is elevated in hepatic encephalopathy. *J Breath Res.* 2016 Nov 21; 10(4): 046010. doi: 10.1088/1752-7155/10/4/046010. PMID: 27869108; PMCID: PMC5500822.
18. Pudelek M, Catapano J, Kochanowski P, Mrowiec K, Janik-Olchawa N, Czyż J, Ryszawy D. Therapeutic potential of monoterpene  $\alpha$ -thujone, the main compound of *Thuja occidentalis* L. essential oil, against malignant glioblastoma multiforme cells in vitro. *Fitoterapia.* 2019 Apr; 134: 172-181. doi: 10.1016/j.fitote.2019.02.020. Epub 2019 Feb 27. PMID: 30825580.
19. Brain Meets Body The Blood Brain Barrier as an Endocrine Interface <https://www.researchgate.net/publication/229015733>
20. Effects of Eugenol on the Central Nervous System Its Possible Application to Treatment of Alzheimer's Disease Depression and Parkinson's Disease <https://www.researchgate.net/publication/233657483>
21. Anti depressant like activity of turmerone in behavioral despair tests in mice <https://www.researchgate.net/publication/258213047>
22. Neutrophil Immunomodulatory Activity of Farnesene a Component of *Artemisia dracunculus* Essential Oils. <https://www.researchgate.net/publication/360840677>
23. Fisk ID, Linforth R, Trophard G, Gray D. Entrapment of a volatile lipophilic aroma compound (d-limonene) in spray dried water-washed oil bodies naturally derived from sunflower seeds (*Helianthus annuus*). *Food Res Int.* 2013 Nov; 54(1): 861-866. doi: 10.1016/j. foodres. 2013. 08.024. PMID: 24235784; PMCID: PMC3824067.
24. Cooksley T, Rose S, Holland M. A systematic approach to the unconscious patient. *Clin Med (Lond).* 2018 Feb; 18(1): 88-92. doi: 10.7861/clinmedicine.18-1-88. PMID: 29436445; PMCID: PMC6330912.

**Cite this article as:**

Aswathi G, Sreevidya C.G, Sirosha M. A Conceptual Study on Oothu Chikitsa or Blowing Therapy- An Emergency Treatment Procedure. *International Journal of Ayurveda and Pharma Research.* 2022;10(10):91-94.

<https://doi.org/10.47070/ijapr.v10i10.2575>

**Source of support: Nil, Conflict of interest: None Declared**

**\*Address for correspondence**

**Dr. Aswathi G**

Assistant Professor (on contract),  
Department of Agadatantra,  
Government Ayurveda College,  
Tripunithura, Kerala.

Email:

[aswatigangadharan@gmail.com](mailto:aswatigangadharan@gmail.com)

Ph.no: 9496728059

Disclaimer: IJAPR is solely owned by Mahadev Publications - dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. IJAPR cannot accept any responsibility or liability for the articles content which are published. The views expressed in articles by our contributing authors are not necessarily those of IJAPR editor or editorial board members.