THERAPEUTIC EFFECT OF VIRECHANA AND KARNAPOORANA IN MENIERE’S DISEASE-A CASE STUDY

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ABSTRACT

Meniere’s disease, synonymously known as endolymphatic hydrops is a disorder of the inner ear where the endolymphatic system is distended with endolymph. It is characterised by four cardinal features (1) vertigo (2) sensorineural hearing loss (3) tinnitus and (4) aural fullness. The annual incidence of Meniere’s disease is 5-7 / 10,000 with the first attack being most commonly in the third to sixth decade of life. The condition needs to be addressed with proper measures in the initial stage itself as it can affect the psychological wellbeing, hampering the quality of life of sufferers. Current line of management is found to be deficient in providing absolute cure for this disease. In ancient Ayurvedic treatises there is no reference that can be correlated exactly to the meniere’s, but based on the symptomatology it has simulation with various manifestations like Bhrama (giddiness), Karnanada(karna=ear,Nada=sound,karnanada=perception of different sounds like ringing,roaring,hissing in the ear) and Karnabadhrya (hearing loss). Analysis of each of these manifestations proves that it is a vata pitta pradhana tridoshaja vyadhi. The ayurvedic treatment given to a patient with intractable meniere’s disease who has approached the outpatient department of ShalakyaTantra of Shri Kalabhyraveshwara swami Ayurveda Medical College Hospital and Research Centre, Bangalore has shown significant results. Considering the dosha pradhanya of the vyadi the patient was treated with virechana and karnapoorana as these are the best pittahara and vatahara chikitsa respectively. As treatment methodology adopted in this case has been encouraging, especially where other systems of treatment failed, the particular case has been selected for this article.

Keywords: Meniere’s disease, Bhrama, Karnanada, Karnabadhrya, virechana, Karnapoorana

INTRODUCTION

Meniere’s disease synonymously known as endolymphatic hydrops is a disorder of inner ear resulting in impairment of hearing and giddiness. Although the disease had been recognised in the early 1860s, the details of underlying mechanism still remain unclear.¹ However the distension of endolymphatic system due to increased volume of endolymph is the most common pathology explained in modern science. Either the increased production of endolymph or its faulty absorption or both together can result in the increased volume of endolymph. The vasomotor disturbance, sodium and water retention, endocrinial causes like hypothyroidism, auto immune and viral causes are the various theories postulated as the aetiological factors. Nearly 50% of sufferers have concomitant allergy either of food or inhalant or both. ² Thus-
Meniere’s disease is multifactorial, finally ending up in endolymphatic hydrops with manifestation of classical symptoms. The disease is characterised by the tetrad of symptoms-episodic vertigo, fluctuating hearing loss, tinnitus and aural fullness.

The annual incidence of Meniere’s disease is 5-7 / 10,000 with the first attack being most commonly in the third to sixth decade of life.\(^3\) The symptoms of Meniere’s varies in intensity from mild to disabling. The quality of life of the sufferers is severely hampered by the disease especially the psychological well-being, which manifest mainly as anxiety and depression. There is a vicious cycle of interaction between somatic symptoms and psychological disturbances.\(^4\)

In ancient ayurvedic treatises there is no reference that can be correlated exactly to the Meniere’s, but based on the symptomatology it has simulation with various manifestations like Bhrama(giddiness), Karnakshweda, karna nada(perception of different sounds like ringing,roaring,hissing in the ear)and Karnabadhirya (hearing loss). Bhrama manifests due to vitiation of many diseases explained in classics such as pandu, jvara, arshas,grahani etc. According to Acharya Susruta, bhrama manifests due to vitiation of manasikadosha rajas and sareerikadoshas like pitta and vata.\(^5\)

Dalhana Acharya further explains Bhrama as a subjective feeling of rotatory motion as if placed on a revolving wheel.\(^6\) The modern science also reveals that the patients of meniere’s disease gets feeling of rotation of himself or his environment. Bhrama is also described as one among the symptoms of kapha kshaya and majjakshaya. As explained by Acharya Videha Karnakshweda is caused due to the association of vitiated vata along with kapha,pitta and rakta. It is characterised by hearing venughosha (sound of flute) in the ear.\(^7\)

Shrama (exertion), dhatukshaya(depletion of dhatus) and rooksha kashayabhojana (excessive intake of dry and astringent food) are the causes described for Karnakshweda.\(^8\) When vitiated vata increases in srotrendriya there will be production of different sounds like bheri/mrudangasabda (sound from different musical instruments like drum) or sankhasabda (sound produced from conch shell) which is described as the disease karna nada.\(^9\) The high pitched ,hissing or rushing sound in ear indicates a pathology in the inner ear. The hissing sound in the ear is explained as a lakshana of karna nada by Videha Acharya. Thus it can be understood that that the karna nada is linked with the inner ear pathology. Karna nada, if not treated at the proper time can lead to badhirya which is a kaphasamsrushta vatavyadhi. Karna is the adhishtana of these manifestations which is the seat of vayu and akashmahabhoota. Analysis of each of these manifestations proves that the disease is a vatapitta pradhana tridoshaja vyadhi.

Vatapittaharachikitsa should be the first line of management considering the adhishtana, stantantaragatadosha and dosha pradhanyata of vyadhi. The satwavajayachikitsa should also be emphasized owing to the dushti of manodosha-rajias.

The conservative management is the only available measure for this disease in the modern science and it is found to be deficient in providing absolute cure. Vestibular sedatives and vasodilators are usually administered to relieve vertigo and to control acute attacks. If attacks are not controlled by these medicines diuretics can be given to control recurrent attacks.\(^10\) But vasodilators like histamine can give rise to adverse reactions and Intratympanic gentamicin therapy is associated with
severe hearing loss in 4-30% of patients. Risk of mild to severe hearing loss is reported with Endolymphatic sac surgery, vestibular nerve section, transmastoid labyrinthectomy. Thus the disease demands an appropriate measure which can reverse the pathology without causing any side effects. Virechana and karnapoorana has been selected to treat this particular case as these are the best pittahara and vatahara-chikitsa respectively.

CASE REPORT
A 52-year-old male patient approached the outpatient department of Shalakya Tantra of Shri Kalabyraveshwara swami Ayurveda Medical College Hospital and Research Centre, Bangalore on 3-10-2014. The patient was presented with complaints of recurrent episodes of vertigo, hearing loss and ringing sound in both the ears. History of the patient revealed that giddiness was developed four years back along with difficulty in hearing in his left ear. He also noticed weird sounds in the ear which aggravate during the attack. The giddiness was associated with imbalance, positional vertigo, nausea, vomiting and loose stools. During the initial stage, each episode of vertigo lasted for 30min-1hrs and gradually progressed to current duration of 2-3hrs. The frequency of attack progressed from once in a month to two to three times in a week. The hearing loss was gradual in onset and two years back it affected the right ear also. The hearing improved after the attack initially but for the last one year, there is hearing loss even during the period between the attacks. The patient was unable to perform his day to day activities and he was forced to take rest most of the time. The tinnitus even impairs his sleep. Thus the above issues hamper the quality of life and psychological well being of the patient.

Investigations available (Pure tone audiometry on 13-6-2013) were showing moderate sensorineural hearing loss in right ear and severe sensor neural hearing loss in left ear. Craniocorpography tests like standing test, tandem walking, unterburger’s test were showing changes suggestive of peripheral vestibular lesion. The patient was under the medication of Tab. Ditide (1-0-0), Tab. Vertin 24mg (1-1), and Tab. Nexito 5mg (1-0-0) for past three years. None of these medications were able to resolve his complaints.

Diagnosis
The case had been diagnosed as definite meniere’s as it fulfils the criteria explained by AAOHNS as follows:
- Two or more definitive spontaneous episodes of vertigo lasting 20 minutes or longer.
- Audiometrically documented hearing loss on at least one occasion.
- Tinnitus or aural fullness in the affected ear.
- All other causes excluded.

Intervention
The patient was subjected to the treatment- virechana with trivritavaleha followed by karnapoorana with katutaila. The patient was instructed to follow pathyaahara and vihara.

Dose and duration
- **Deepanapachana:** Panchakola-choorna-0-¼-¼ tsp half an hr before food for 3 days.
- **Snehapana:** Mahathiktaka ghrita-
  - 1st day : 30ml
  - 2nd day: 60ml
  - 3rd day: 120ml
- **Survanga abhyanga** with Dhanvantara taila and Bashpasweda for 3 days.
- **Virechana:** Trivrit avaleha-60gm
Samsarjanakrama - followed for 3 days.
Karnapoorana: Sarshapataila for 7 days.

**Follow up**
The case had been followed up twice in a month after the course of treatment for 2 months.

**Criteria for assessment**

Criteria for assessment have been done based on subjective and objective parameters by adapting a grading pattern before and after the treatment as follows:

<table>
<thead>
<tr>
<th>SYMPTOMS</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TINNITUS</strong></td>
<td>No tinnitus</td>
<td>Audible only in silent environment</td>
<td>Audible only in ordinary acoustic environment, but masked by loud environmental sounds; can disturb falling asleep, but not sleep in general.</td>
<td>Audible in all acoustic environments, disturbs falling asleep, can disturb sleep in general and is dominating problem that affects quality of life.</td>
<td>-</td>
</tr>
<tr>
<td><strong>VERTIGO</strong></td>
<td>No vertigo</td>
<td>Vertigo not associated with any other symptoms.</td>
<td>Associated with nausea &amp; vomiting. Remission lasting for months.</td>
<td>Associated with pallor/ bradycardia/ abdominal cramp/ cold/ diarrhoea/ sweat. Remission lasting for weeks.</td>
<td>-</td>
</tr>
<tr>
<td><strong>FUNCTIONAL LEVEL</strong></td>
<td>Does not affect day to day activities</td>
<td>During the attack patient has to stop the activity, can resume the work after the attack.</td>
<td>During the attack patient has to stop the activity, can resume the work after the attack. But patient has to compromise in some activities.</td>
<td>Patient is disabled and unable to do day to day activities.</td>
<td>-</td>
</tr>
<tr>
<td><strong>HEARING LOSS</strong></td>
<td>No hearing loss</td>
<td>Mild (26-40dB)</td>
<td>Moderate (41-55dB)</td>
<td>Moderate (41-55dB)</td>
<td>Severe (71-91dB)</td>
</tr>
</tbody>
</table>

**Observations and results**

Table 2. Effect Of Treatment In Tinnitus And Hearing Loss
There was significant reduction in the symptoms after treatment especially in the vertigo. There was complete reduction in vertigo immediately after *virechana*, which enhanced the functional level of the patient. The vertigo reduced from the grade-3 to grade 0 after the treatment. There were no episodes of vertigo after treatment and during follow up. Tinnitus in both ear also showed significant reduction from grade 3 to grade 1 after treatment and during follow up. Even though the hearing loss in the right ear showed no change after treatment, hearing loss in the left ear was reduced from severe to moderate hearing loss i.e., from grade 4 to grade 2.
Figure 1: SEVERITY OF SYMPTOMS IN PERCENTAGE

There was 100% reduction in vertigo after treatment and 67% reduction in the tinnitus and functional level. The hearing loss in right ear showed no change whereas the same in left ear had 50% improvement.

DISCUSSION

The patient presented as a case of intractable Meniere’s disease with impairment in the quality of life by the disease especially, the psychological well-being. Challenge was that whether Ayurveda can cure and improve the quality of life of such patients?

Even though the tetrad of symptoms of Meniere’s disease cannot be found together in any of the diseases explained in Ayurveda, the manifestations of Bhrama, karna nada, karnakshweda and badhirya have simulations with symptoms of Meniere’s disease. Analysis of these manifestations proves that the condition is a vata pittapradhana tridoshavyadhi.

The patient was administered snehapanam with mahatiktakaghrita and virechana with trivrit avaleha followed by karnapoorana with katutaila. The results obtained immediately after virechana was noteworthy especially as there was complete relief in vertigo. The tinnitus also reduced to greater extent after karnapoorana. The reduction in both these symptoms enhanced the patient’s quality of life and confidence. The comparison of audiometry reports before and after treatment also revealed significant reduction in hearing loss in left ear.

ACTION OF MAHATIKTAKA GHrita

Mahatiktakaghrita explained in Ashtangahrudaya was selected for snehapanam as it is an excellent formulation for paittitakavikaras and indicated also in bhrama. It is having srotoshodhana and raktaprasadana-karma. As it contains tiktarasa pradhanadravyas, it does the upashoshana of the kleda, shleshma and pitta. Thereby it may reduce the increased dravaguna and sara guna of pitta and kleda which may help to reduce the excessively produced endolymph. The ghrita itself is the best medicine to alleviate pitta and vata. When it is processed with tikta rasa dravyas, it also alleviates dooshita-kapha.

ACTION OF TRIVRIT AVALEHA

Trivrit avaleha is having pitta-kaphasamana, vatajulomana and srotoshodhanaproperty. Trivrit is having kashayamadhura rasa and rooksha-guna and it is the best formulation to induce the sukha virechana. By virtue of these properties, it helped to eliminate the dooshita pitta and kapha along with vatanulomana-karma. The above said properties helped to bring back doshas to normalcy and there by relief in symptoms.

PROBABLE ACTION OF VIRECHANA IN MENIERE’S DISEASE

Virechanadravya due to its ushna, teekshna and sukshmaguna reaches the saukshmasrotas, i.e., the target area; vascular epithelium in striavascularis and cause vishyandana of doshas ultimately eliminating them from the body. The virechana brought about srotosudhi by removing dooshita pitta and kapha and thereby removing the margavarodha. Virechana also brings vata in anulomagati. Thus the vata vrudhi in the srotrendriya which is a seat of vayu and akasha mahabhoota will be inhibited. Due to these
properties, it reduces bhrama, badhirya and karna nada.

- The virechana helps in depleting the fluid volume in the body. As endolymph resembles the intracellular fluid, it may also be reduced by virechana.

- The vitiated vata impairs the conduction of sound while transduction of sound is hampered by vitiated pitta. As this particular mechanism is brought back to normalcy by the pittahara and vatanulomana karma of virechana; which could be understood as the reason for significant improvement in hearing following virechana.

- Virechana, being the best pittahara chikitsa will also correct the dooshita rakta as pitta and rakta are interrelated due to ashraya ashrayi bhava. Virechana will also promote the functioning of srotrendriya as it is having indriyaprasadanakarma.[14]

**ACTION OF KARNAPOORANA WITH KATUTAILA**

- Karnapoorana with katutaila is indicated in nada-badhiryachikitsa in various treatises[15]. Katutaila is having kapha vatahara property there by it helps to reduce badhirya which is described as a kaphavruta vatavyadhi.

- Karnapoorana is explained as a dinacharya to prevent vatikakarnaroga and badhirya. It is also described as one among the vicharanasneha. Hence katutailakarnapoorana is an excellent therapy to reduce the vatikakarnaroga which could be the reason for significant reduction in tinnitus and hearing loss following karnapoorana in the present case.

**CONCLUSION**

The present case study signifies the role of virechana and karnapoorana in the treatment of Meniere’s disease. The chikitsa should be pittahara followed by vatanulomana considering the adhishtana and doshapradhanyata of vyadhi. The results obtained after treatment was remarkable as it was a case of intractable Meniere’s disease. As treatment methodology adopted in this case has been encouraging, especially where other systems of treatment failed, it is desirable that further studies and clinical trials be conducted in a few more similar cases to arrive at a decisive conclusion about the choice of treatment and to improve the success rate.

**REFERENCES**

1. Mohan Bansal, Diseases of ear, nose and throat, Jaypee Brothers medical publisher’s, New Delhi, 2013, Section 2, 22nd Chapter, p241.


6. Susruta: Susruthasamhitha with Nibandhasamgraha commentary by Dahanacharya, Chaukambhasurab-
11. Vagbhata: Ashtanga Hrudaya with the commentaries of Sarvangasundara of Arunadatta and Ayurveda rasayana of Hema-

madri, ChaukambhaSanskritsansthan, V aranasi, Reprint2009, Kalpa

Stana, Chapter2/3,9, p. 742

12. Vagbhata: Ashtanga Hrudaya with the commentaries of Sarvangasundara of Arunadatta and Ayurveda rasayana of Hema-

madri, ChaukambhaSanskritsansthan, V aranasi, Reprint2009, Kalpa

Stana, Chapter2/3,9, p. 742

13. Agnivesha, Carakasamhita with Ayurveda deepika commentary by Cakra-

panidatta, Chaukambhasurasaharatrikakan, varnasi, edition 2008, Kalpasthanam, 1/5 p 651

14. Agnivesha, Carakasamhita with Ayurveda deepika commentary by Cakra-

panidatta, Chaukambhasurasaharatrikakan, varnasi, edition2009, Siddhistanam, 1/27, p 680

15. YogaRatnakara, edited and translated by Dr. MadhamShetty Suresh BabuChowkhamba Sanskrit Series office Varanasi 1st edition, Uttarardha-

Volume1, Karnarogachikilisa 33, p. 1055.

Audiometry Report on 13-02-2015

Audiogram - Right Ear (13-06-2013)

Audiogram - Left Ear (13-06-2013)
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