www.ayurpharm.com
ISSN: 2278-4772

Ayurpharm Int J Ayur Alli Sci., Vol. 6, No. 1 (2017) Pages 1 – 7

Research Article

A CLINICAL STUDY TO EVALUATE THE EFFECT OF CURNAPINDASWEDA WITH NADI SWEDA IN MANYASTHAMBHA

Soumya Jacob[1], Anandaraman PV[2], Parameswaran Namboothiri[3], Prathibha CK[4*]

1. *PG Scholar, Dept. of Panchakarma, Amrita School of Ayurveda, Kollam, Kerala, India.*
2. *Associate Professor, Dept. of Panchakarma, Amrita School of Ayurveda, Kollam, Kerala, India.*
3. *Associate Professor, Dept. of Panchakarma, Amrita School of Ayurveda, Kollam, Kerala, India.*
4. *Associate Professor, Dept. of Panchakarma, Amrita School of Ayurveda, Kollam, Kerala, India.*

Received: 25-10-2016; Revised: 28-12-2016; Accepted: 17-01-2017

Abstract

Manyasthambha is a Vata Vyadhi where neck movements are restricted. The other Laksanas of this disease include Ruk, Stambha, Sopha and Cheshta stambha. It can occur as Dhatu Kshayaja condition and also as Avaranaja Vikara. Swedana therapy has a special role in this disease. Ruksana is an ideal treatment to break Kaphavarana. So in order to relieve the obstructing Kapha dosha, Ruksha Sweda is to be done. Churna pinda sweda is the most important technique of Ruksha Sweda. Nadi Sweda is another treatment modality, which can be done in this Avastha to relieve Avarana. The main aims are to evaluate the effect of Churna pinda sweda in Manyasthambha, to evaluate the effect of Nadi Sweda in Manyasthambha, to compare the effect of Churna pinda sweda with Nadi Sweda in Manyasthambha. 20 patients having Manyasthambha was selected and randomly divided into two groups of 10 patients each. In Group A, Curna pinda sweda was done and in Group B, Nadi Sweda was adopted. Assessment in relief of signs and symptoms was done after treatment on seventh day. Both (Curna pinda sweda) and NS (Nadi Sweda) was found effective in treating Manyasthambha. There was statistically insignificant difference seen between both the groups. Nadi Sweda group provided better result in relieving pain and stiffness of neck region. Curna pinda sweda and Nadi Sweda having Vata kapha hara property are effective in Manya stambha.

Key words: Manyasthambha; Swedana; Curna pinda sweda; Nadi sweda; Dasamoola.

***Address for correspondence:**
Dr. Prathibha CK,
Associate Professor,
Dept. of Panchakarma,
Amrita School of Ayurveda,
Kollam, Kerala, India – 690 525
E-mail: drprathibhack@gmail.com

Cite This Article

Soumya Jacob, Anandaraman PV, Parameswaran Namboothiri, Prathibha CK. A clinical study to evaluate the effect of Curna Pinda Sweda with Nadi Sweda in Manyasthambha. Ayurpharm Int J Ayur Alli Sci. 2017;6(1):1-7.

www.ayurpharm.com
ISSN: 2278-4772
Ayurpharm Int J Ayur Alli Sci., Vol. 6, No. 1 (2017) Pages 1 – 7

INTRODUCTION

In the current era, human beings are prone to many neck related problems because of unwholesome lifestyles, food habits, due to stress and nature of work. Improper sitting postures and continuous work create undue pressure and stress that causes injury to cervical spine which may play an important role in producing diseases like cervical spondylosis, cervical radiculopathy, cervical spondylitis etc. Some of the signs and symptoms seen in these diseases can be correlated to Manyasthambha (stiff neck). Manyasthambha is a Vata vyadhi (Diseases of the nervous system) where neck movements are restricted.[1] One of the main features of Manyasthambha is Stambha. It is a Urdhwajatrugata Vikara (disease of upper limb) in which Vata gets Avruta (blocked) by Kapha and manifest Lakshanas (symptoms) like Ruk (pain), Stambha (stiffness) and Sopha (swelling). The etiological factors responsible for this disease are sleeping at day time, sitting on irregular postures, constantly gazing upwards.[2]

It can occur as Dhatu Kshayaja (muscle wasting) condition and also as Avaranaja vikara (diseases due to block). The line of treatment of both these conditions is different. The general line of treatment of Manyasthambha is Nasya (Administration of drugs by the route of nasal cavity) and Ruksha Sweda (dry fomentation).[3] In the initial stages of Manyasthambha there is Vata Avarana by Kapha which in later turns out to be a Kevala Vata vyadhi (disease of vata alone). So in order to relieve the obstructing Kapha Dosha, Ruksha Sweda is to be done. Churna pinda sweda (fomentation with herbal powder) is the most important technique of Ruksha Sweda. Nadi Sweda (wet fomentation) is another treatment modality, which can be done in this Avastha (stage) to relieve Avarana (block).
In contemporary system of medicine, the management for the above is use of steroids, analgesics and anti inflammatory drugs. It is observed that these treatments does not yield long term relief and cannot satisfy the objective of an ideal therapy. So it is the need of the hour to find an effective remedy.

Dashamula is Shulagna (analgesic) and Kapha Vata hara (alleviates kapha and vata).[4] So here is an attempt made to evaluate the efficacy of Churna pinda sweda and Nadi Sweda with Dashamula in Manyasthambha. As the treatments are done locally, it's economic, less time consuming and may be effective. Here the selected drug is also easily available.

MATERIALS AND METHOD

Source of data

20 patients having Manyasthambha is selected from OPD and IPD of Amrita Ayurveda Hospital, Vallickavu, Kerala, India and randomly divided into two groups of 10 patients each.

Preparation of medicine

Dashamula kwatha

Daily 60 g of Dashamula kwatha Churna was taken and boiled with 1 litre of water, which was used for Nadi Sweda.

Dashamula Churna

200 g of fine Dashamula Churna is tied into one Pottali (bolus), which was used for Churnapinda Sweda. (Table 1)

Method of collection of data

Study design

Randomized Comparative clinical study

Treatment procedure

Group A - CPS (Churna pinda sweda)

www.ayurpharm.com
ISSN: 2278-4772
Ayurpharm Int J Ayur Alli Sci., Vol. 6, No. 1 (2017) Pages 1 – 7

Table 1: Dasamoola Drugs

Sl.No.	Drugs	Botanical Name	Parts Used
1	Bilwa	*Aegle marmelos*	Root
2	Gambhari	*Gmelina Arborea*	Whole Plant
3	Patala	*Stereospermum Sauvealens*	Roots, leaves, flowers, fruits, seeds
4	Shyonaka	*Oroxylum Indicum*	Root
5	Agnimantha	*Premna integrifolia*	Root, Bark
6	Gokshura	*Tribulus Terrestris*	Fruit, Root
7	Shaliparni	*Uraria picta*	Root
8	Prishniparni	*Desmodium gangeticum*	Root
9	Kantakari	*Solanum surattense*	Whole plant
10	Brihati	*Solanum indicum*	Root

Heated Pottali was applied over neck and shoulder region and the procedure was continued till sweat was seen over patient's forehead without any oil application Pottali was changed every third day and whole procedure was done for seven days.

Group B - NS (Nadi sweda)

Nadi Sweda was given through Nadi Sweda Yantra (instrument) over neck and shoulder region. The procedure was continued till sweat was seen over patient's forehead and whole procedure was done everyday for 7 days.

Inclusion criteria

- Patient suffering from Ruk, Stambha, Sopha, Chesta Stambha in neck region.
- Patients of either sex between the age group of 20 to 60
- Known cases of Diabetes Mellitus, Hypertension.

Exclusion criteria

- Patient with fracture of cervical spine
- Known case of systemic diseases like Cervical TB, Cervical Myelopathy, Metabolic bone diseases.

Diagnostic criteria

Patient having Ruk (Pain), Stambha (Stiffness), Sopha (Swelling), ChestaS tambha (Restricted Movements) of the neck.

Assessment criteria - Subjective parameter

- Ruk (Pain) in neck
- Stambha (Stiffness)
- Sopha (Swelling)
- Chesta Stambha (Restricted Movements)

Objective parameter

- Pain assessed with Visual Analogue Scale (Numeric Rating Pain Scale)
- Range of movement assessed with Goniometer.

Investigation

- Routine blood examination
- X- ray of Cervical Spine

Analysis of data

Data analyzed using standard Statistical software. Within the group, the results were

www.ayurpharm.com
ISSN: 2278-4772
Ayurpharm Int J Ayur Alli Sci., Vol. 6, No. 1 (2017) Pages 1 – 7

statistically analyzed using Paired‘t’ test. To compare both groups, Student‘t’ test was done.

Method of assessment of clinical response

Assessment was done at baseline, on completion of the procedure and after follow up.

Pain

The method used for the pain assessment was Visual Analogue Scale (VAS, Numeric Pain Rate Scale). In this, a scale of 10 the patient was instructed to tell the reading relating to their pain severity before treatment, which was considered to be the initial pain scale reading. The same procedure was repeated after treatment and after follow up.

The pain reading was graded as follows-
Visual Analogue Scale

0	-	Nil
1-3	-	Mild
4-6	-	Moderate
7 and above	-	Severe

Ruk

Grade 0 -	No pain
Grade 1 -	Mild
Grade 2 -	Moderate
Grade 3 -	Severe

Tenderness

Grade 0 - No tenderness
Grade 1 - Tenderness to palpation without grimace
Grade 2 - Tenderness to palpation with grimace
Grade 3 - Tenderness with withdrawal
Grade 4 - Withdrawal to non-noxious stimuli (with superficial palpation, pinprick, gentle percussion)

Stiffness

Grade 0 - No stiffness
Grade 1 - Upto 25% impairment in range of movement, patient can do daily routine without any difficulty.
Grade 2 - Upto 25-50% impairment in range of movement, patient can perform daily routine with mild or moderate difficulty.
Grade 3 - Upto 50-75% impairment in range of movement, patient can perform daily routine with moderate or severe difficulty.
Grade 4 - More than 75% impairment in range of movement, patient totally unable to do daily routine.

Range of Movement

Grade 1 - Upto 25% of movement
Grade 2 - 25-50% of movement
Grade 3 - 50- 75% of movement
Grade 4 - 75-100% of movement

Rotation

Grade 0 - Possible without any difficulty
Grade 1 - Possible with slight difficulty
Grade 2 - Possible with very difficulty
Grade 3 - Not at all possible

OBSERVATIONS

Demographic Data of the study are depicted in Table 2. The signs and symptoms of Manyasthambha was observed in all patients. (Table 3)

The result shows that CPS is significant in reducing the pain, tenderness, stiffness.

This is also effective in enhancing the range of movements enhancing the range of movements of neck region like flexion, extension, right lateral bending, left lateral bending, rotation at $p<0.01$, which is statistically highly significant. (Table 4)

www.ayurpharm.com
ISSN: 2278-4772
Ayurpharm Int J Ayur Alli Sci., Vol. 6, No. 1 (2017) Pages 1 – 7

Table 2: Demographic data

Observations	Percentage
Age (20-50)	85
Religion (Hindu)	88
Gender (Female)	82
Diet (Mixed)	90
Appetite (Medium)	77.5
Agni (Samam)	77.5
Sleep (Disturbed)	42.5
Bowel (Regular)	90
Prakriti (Vata Kapha)	45
Chronicity (<6 months)	35
Neck Pain	100
Neck stiffness	100
Restricted movements	100
Swelling	20

Table 3: Effect of CPS in Signs and Symptoms of Manyasthambha

Variables	Mean Difference	Standard Deviation	Standard Error	T value	P value
Pain	0.60	0.516	0.163	3.674	0.005
Stiffness	0.70	0.483	0.152	4.58	0.01
Tenderness	0.40	0.516	0.163	2.4	0.03
Cervical flexion	0.8	0.757	0.119	6.67	0.001
Extension	0.5	0.707	0.223	2.23	0.05
Right lateral bending	0.9	0.316	0.100	6.47	0.001
Left lateral bending	0.7	0.8	0.171	3.9	0.001
Rotation	0.5	0.527	0.166	3.00	0.01

Table 4: Effect of Nadi Sweda in Signs and Symptoms of Manyasthambha

Variables	Mean Difference	Standard Deviation	Standard Error	T value	P value
Pain	1.00	0.667	0.210	4.74	0.001
Stiffness	0.8	0.788	0.249	3.207	0.01
Tenderness	0.40	0.5160	0.163	2.4	0.03
Cervical flexion	0.8	0.767	0.171	4.86	0.001
Extension	0.5	0.707	0.223	2.21	0.05
Right lateral bending	0.8	0.918	0.290	2.75	0.02
Left lateral bending	0.6	0.94	0.21	2.58	0.001
Rotation	0.5	0.52	0.166	3.0	0.01

The result shows that NS is significant in reducing the pain, tenderness, stiffness. This is also effective in enhancing the range of movements enhancing the range of movements of neck region like flexion, extension, right lateral bending, left lateral bending, rotation at $p<0.05$, which is statistically significant. (Table 5)

By comparing two groups the result has shown that it is not statistically significant.

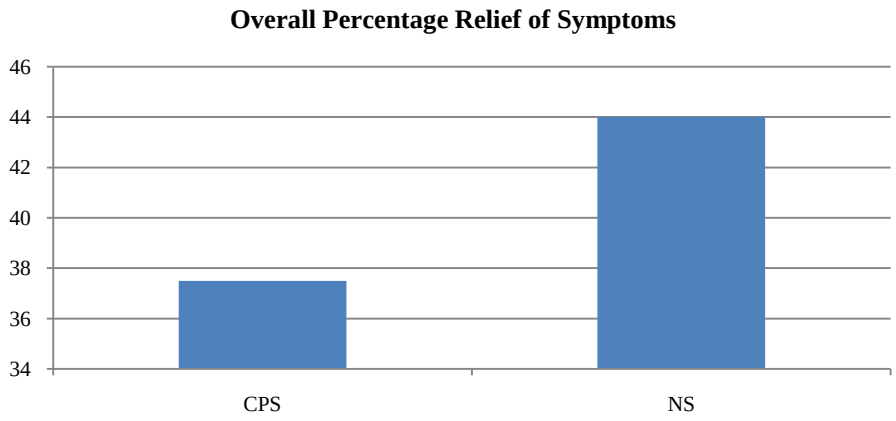
The effect of Churna pinda sweda and Nadi Sweda in Manyasthambha are same. (Graph 1) Overall in Churna pinda sweda group, 37.5% relief of symptoms (pain and stiffness) was seen and in Nadi Sweda Group 44% of relief was found.

www.ayurpharm.com
ISSN: 2278-4772
Ayurpharm Int J Ayur Alli Sci., Vol. 6, No. 1 (2017) Pages 1 – 7

Table 5: Comparative the effect of CPS and NS in Manyasthambha

Group	Mean Difference	SD	T value	P value
CPS Group		4.59		
	0.3		0.12	>0.05
NS Group		5.78		

Graph 1: Overall percentage of relief of two groups



DISCUSSION

82% of patients were female. This may be due to their household activities which create pressure on cervical spine. 43% of patients were in age group between 50 and 60 years. This proves that the inflammatory and degenerative changes of cervical spine predominantly seen after age of 40 years. In the present study 88% of patients were Hindus. This may be due to the area involved as majority of patients were Hindus. 40% of the patients are housewives. Stress and due to heavy work create pressure on cervical spine, which results in this disease. 90% of patients were taking mixed diet. Kaphaprakopa Aharas like anupa mamsa (meat of animal lives in marshy land) may result in Kapha dosha dusti (vitiation), which results in Manyasthambha. 42.5% of patients are having disturbed sleep which may be the result of Kapha Prakopa and as a result Manyasthambha can occur. In 65% of patients, the disease is of acute in onset. This shows that it is the initial stage of disease, where association of Kapha is there.

In 67.5% of patients, the condition got worsened by neck movements. In degenerative condition of cervical spine, neck movements aggravate the pain. In about 80% of patients by hot and oil application, the symptoms got relieved. This implies that Kaphavarana has gone and it becomes purely Vata. In 20% of patients, day sleep was present. This causes Kaphaprakopa as a result the disease can occur. In about 30% of patients, stiffness occur as a result of irregular posture of neck while sleeping, sitting or while doing activities.

Discussion on mode of action of Swedana in Manyasthambha

Manyasthambha is a disease pertaining to neck region. The Doshas involved are Vata and Kapha. Swedana Karma (fomentation) is indicated in Vata and Vata kaphaja disorder. [5] Vata is responsible factor for inducing pain in neck region. The Guna (quality) of Vata and Swedana are opposite to each other. The Ushna guna (hot) of Sweda relieves pain in neck region. Vataharatwa (alleviates vata)

www.ayurpharm.com
ISSN: 2278-4772
Ayurpharm Int J Ayur Alli Sci., Vol. 6, No. 1 (2017) Pages 1 – 7

property of Churna pinda sweda and Nadi Sweda cures neck pain.

By the Ushna Guna of Sweda, Amapachana take place and thus stiffness of neck gets relieved. Tikshna Guna of Sweda and Kaphaharatwa property of Churnapinda and Nadi Swedas, Manyasthambha gets relieved. Here the site of the disease is also Kaphasthana and hence Swedana mainly Ruksha Sweda is the apt treatment for Manyasthambha.

Discussion on the effect of Churna pinda sweda and Nadi Sweda in Manyasthambha

Pain

By analyzing the mean of Visual Analogue Scale, it was observed that Nadi Sweda was found effective in reducing the pain of neck region. In Manyasthambha, Vata is responsible for inducing pain especially its Ruksha (dry) and Shita Guna (cold).[6] Swedana by its Ushna Guna reduces Shitata (coldness) in the body and thus pain gets reduced. Swedana by its Snigdha Guna (unctuous property) absorbs Rukshata (dryness), which contribute pain in neck region. The Upakrama (treatment) of Vata is also mainly Sneha Sweda (wet fomentation). Here Churna pinda sweda and Nadi Sweda are the treatments adopted. Both these Swedas has Vata Kaphahara property.[7] By considering the Vataharatwa property of Churna pinda sweda, Shula can be relieved. Nadi Sweda also has Vata Kaphahara property, which reduces pain. Here the Swedana was done with Dashamula Churna. The drug Dashamula has KaphaVatahara property which acts as Shulahara.

The sedative effect produced relieves the pain in area. This reduces the inflammation and facilitates better blood supply and improved nerve conduction. Heat is also a counter irritant ie the thermal stimulus may affect the pain sensation as explained in pain gate theory of Melzack and Wall.[8] Heat appears to produce definite sedative effects. The heat has its effect on nerve conduction.

Any chemical change capable of being accelerated by heat is accelerated by a rise in temperature. Consequently heating of tissues accelerates the chemical changes, i.e.metabolism. The increase in metabolism is greatest in the region where most heat is produced, which is in the superficial tissues. As a result of the increased metabolism there is an increased demand for oxygen and foodstuffs, and an increased output of waste products, including metabolites. As a result coldness of body gets reduced. Thus pain will be get reduced.[9]

Stambha

Churna pinda sweda and Nadi Sweda are found effective in relieving the stiffness of neck, statistically. Stiffness is a resultant of excess Shita Guna. Vayu by Ruksha Guna absorbs Snigdhata which results in Stambha in neck region.[10] Swedana by its Ushna property relieves Stambha. Ushna Guna of Swedana does Srotosudhi (clears the channels) and Amapachana (digest the undigested materials) and relieves stiffness. By its Tikshna Guna of Swedana, Kapha Dosha which is responsible for Stambha gets relieved. Here the site of disease is also Kaphasthana (place of kapha). Ruksha Sweda is indicated for Kaphanubandha condition. In case of neck stiffness, Ushna property of Churna pinda sweda and Nadi Sweda may found to be alleviating the stiffness, which is caused by Shita Guna. The drug Dashamula has KaphaVata hara property which relieves neck stiffness. Majority of the drugs of Dashamula are having Ushna Virya which act against Stambha.

Both these Swedas are effective in enhancing the range of movements of neck region. Ushna Guna of Swedana alleviates stiffness of neck region, thereby improves range of movement.

www.ayurpharm.com
ISSN: 2278-4772
Ayurpharm Int J Ayur Alli Sci., Vol. 6, No. 1 (2017) Pages 1 – 7

As far tenderness is concerned, the treatments have good effect. Tenderness is caused by Vata Dosha. Swedana alleviates Vata Dosha. This may helps in reducing the tenderness.

Churna pinda sweda was found more effective than Nadi Sweda in relieving swelling. Swelling occurs as a result of Kapha Dosha. Sweda act as Vata Kapha Śamana by virtue of its Ushna, Snigdha, Tikshna, and Sukshma Guna (penetrating property). It compats with the properties of Shita, Ruksha and Laghu Guna. The drug selected for Swedana has anti inflammatory and analgesic action due to its KaphaVata hara property.

Rise in temperature induces muscle relaxation and increases the efficiency of muscle action, as the increased blood supply ensure the optimum conditions for muscle contraction.

Range of movement

Both these Swedas are effective in enhancing the range of movements of neck region. Ushna Guna of Swedana alleviates stiffness of neck region, thereby improves range of movement.

Tenderness

As far tenderness is concerned, the treatments have good effect. Tenderness is caused by Vata Dosha. Swedana alleviates Vata Dosha. This may helps in reducing the tenderness.

Swelling

Churna pinda sweda was found more effective than Nadi Sweda in relieving swelling. Swelling occurs as a result of Kapha Dosha. Sweda act as Vata Kapha shamana (palliative) by virtue of its Ushna, Snigdha, Tikshna, and Sukshma Guna. It compats with the properties of Shita, Ruksha and Laghu Guna. The drug selected for Swedana has anti inflammatory and analgesic action due to its KaphaVata hara property.

In addition, the heat has a direct effect on the blood vessels, causing vasodilatation, particularly in the superficial tissues where the heat is more. Stimulation of superficial nerve endings can also cause a reflex dilatation of the arterioles. As a result of the vasodilatation there is an increased flow of blood through the area, and thus inflammation can be reduced.

So due to the Vatahara and Kaphahara property, the Churna pinda sweda and Nadi Sweda with Dashamula Churna may produce considerable effects in reducing the signs and symptoms of Manyasthambha.

CONCLUSION

After a vivid discussion, it can be said that both Churna pinda sweda and Nadi Sweda had a definite role in management of Manyasthambha. However in relieving Pain and stiffness of neck region, Nadi Sweda provided better relief than Churna pinda sweda.

REFERENCES

1. Charaka. Charaka Samhita (Ayurveda Deepika Commentary of Chakrapani Datta). Yadavji Trikamji, editor. 1st ed. Varanasi: Chaukhamba Publication; 2011. Sutra Sthana, 20/11. p.113.
2. Susruta. Susruta Samhita (Nibandha Samgraha commentary of Dalhana). Yadavji Trikramji, editor. 1st ed. Varanasi: Chaukhamba Publication; 2009. Nidana Sthana, 1/67. p. 267.
3. Bhava Mishra. Bhavaprakasha (Vidhyothini Teeka). Pandit Shri Brahma Mishra, editor. 9th ed. Varanasi: Chaukhamba Sanskrit Sansthan; 2005. Madhyama Khanda, 24/65. p.239.
4. Susruta. Susruta Samhita (Nibandha Samgraha commentary of Dalhana). Yadavji Trikramji, editor. 1st ed. Varanasi: Chaukhamba Publication; 2009. Sutra Sthana, 38/66. p.161.
5. Charaka. Charaka Samhita (Ayurveda Deepika Commentary of Chakrapani Datta). Yadavji Trikamji, editor. 1st ed. Varanasi: Chaukhamba Publication; 2011. Sutra Sthana, 14/26. p.89.
6. Susruta. Susruta Samhita (Nibandha Samgraha commentary of Dalhana). Yadavji Trikramji, editor. 1st ed. Varanasi: Chaukhamba Publication; 2009. Sutra Sthana, 17/7. p.83.

www.ayurpharm.com
ISSN: 2278-4772
Ayurpharm Int J Ayur Alli Sci., Vol. 6, No. 1 (2017) Pages 1 – 7

7. Susruta. Susruta Samhita (Nibandha Samgraha commentary of Dalhana). Yadavji Trikramji, editor. 1st ed. Varanasi: Chaukhamba Publication; 2009. Sutra Sthana, 32/14. p.514.
8. Sembulingam K, Prema Sembulingam. Essentials of Medical Physiology. 6th ed. New Delhi: Jaypee Brothers Medical Publishers (P) Ltd.; 2012. 145th chapter. p. 841.
9. Angela Forster, Nigel Palastanga. Clayton's Electrotherapy: Theory and Practice. 8th ed. London: CBS Publishers and Distributors Pvt ltd.; 2005. 3rd chapter, p.97.
10. Ajaya Kumar Sharma. The PanchaKaṛma treatment of Ayurveda including Keraliya PanchaKaṛma. 1st ed. New Delhi, India Sri Satguru Publications; 2002. p.23.

Source of Support: Nil
Conflict of Interest: None Declared