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MULTIPLE VACUUM SYRINGE BLOOD ASPIRATION PROCEDURE (MVSABP): A NEW HORIZON OF RAKTAMOKSHANA PROCEDURE IN PANCHAKARMA THERAPY OF AYURVEDA

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ABSTRACT

Panchakarma is a specialized branch of Ayurveda that primarily deals with the body's purification (Shodhana) of doshas. As we know, the word Panchakarma refers to five special therapeutic procedures like Vamana, Virechana, Vasti, Nasya and Raktamokshana. Raktamokshana is an effective bloodletting therapy. Classically it is described as of six types, i.e. (1) Shringa, (2) Jalauka, (3) Alabu, (4) Shiravedha, (5) Prachchhana and (6) Ghatyantra. In the present study, a clinical trial has been done, especially in the disease of Gridhrasi, with particular reference to Sciatica by combining Prachchhana and Ghatyantra, a modified form of Raktamokshana therapy, called Multiple Vacuum Syringe Blood Aspiration Procedure (MVSABP). Sciatica is painful neuralgia of the Sciatic Nerve in which pain starts from the gluteal region and buttock and comes down through the back of thigh, knee, calf and outer border of the foot. Sixty patients were selected for the clinical trial using a simple random sampling method from the OPD and IPD of Government Ayurveda College and Hospital, Varanasi, Uttar Pradesh, India. Two groups are made like Group-A and Group-B, each consisting of 30 patients. Patients of Group-A are treated with only traditional Ayurvedic medicines, and patients of Group-B are treated with MVSABP and traditional Ayurvedic medication. After one month of final treatment, assessment is done on statistical parameters, which show pretty better results in Group-B patients. The application of MVSABP in the disease of Gridhrasi draws a new horizon to the ailing humanities.

KEYWORDS: Gridhrasi, Sciatica, Raktamokshana, MVSABP, Prachchhana & Ghatyantra.

INTRODUCTION

Panchakarma, the pride of Ayurveda, refers to five special therapeutic procedures like Vamana, Virechana, Vasti, Nasya and Raktamokshana. Raktamokshana is classically described as of six types. These are Shringa, Jalauka, Alabu, Shiravedha, Prachchhana and Ghatyantra. Day by day, as Panchakarma therapy is becoming popularised worldwide, new researches are being introduced to this specific branch of Ayurveda to meet the necessity and demand in society. So far as Raktamokshana is concerned, its immediate treatment of different diseases is applied in various specific modified methods to make the rigid procedures simple and more result-oriented. By combining the classical procedure of Prachchhana and Ghatyantra, a new procedure has been developed, called Multiple Vacuum Syringe Blood Aspiration Procedure (MVSABP). Though this procedure can be applied in different diseases like Gridhrasi, Sandhivata, Amavata, Avabahuka, Vishwachi, Vatarakta etc., here, for clinical study, it is only involved in the disease of Gridhrasi.

In this study, it is found that this procedure is highly effective to alleviate the painful condition of Gridhrasi.

According to Ayurveda, this particular disease is one of the eighty types of Nanatmaja Vata Vyadhi. The signs and symptoms of this disease keep close similarities with those of Sciatica as per modern medical science. Sciatica is a severe neurological disorder that occurs due to different pathologies of the Sciatic Nerve. So, it is also called Sciatic Neuralgia. Nowadays, this disease has become a common phenomenon in human life,

perhaps due to busy and irregular lifestyles. Traditional Ayurvedic medicines, in most cases, are effective for the treatment of Gridhrasi. But in some cases, where only these medicines seem insufficient, the MVSABP is applied to derive the expected result.

Ayurvedic View on Gridhrasi:- 'Gridhrasi' is a Sanskrit word derived from the root word 'Gridhra', a particular bird, Vulture. The vocabulary of the disease Gridhrasi is given due to its various similarities with different aspects of Vulture. These are as follows.

"Gridhraiva Syaati Bhakshayati Iti Gridhrasi"

"Gridhraiva Syaati Pidayati Iti Gridhrasi"

Gridhrasi gives severe pain as vulture gives pain while eating its prey.

"Gridhraiva Syaati Gachchhati Iti Gridhrasi"

The patient walks like the gait of a Vulture.

"Satatam Mamsabhakshinam Gridhramapi Syaati Naashayati"

Non-Vegetarians are also sufferers of Gridhrasi.

Definition of Gridhrasi

Maharishi Charaka has defined the disease Gridhrasi like this.

*“Sphikpurvaa Katiprishthorujaanujanghaa Padam Kramaat
Gridhrasi Stambharuktodairgrihnaati Spandate Muhuh
Vaataatvaatakaphaattandraagauravaarochakaanwitaa”*
(Ch.Chi.28/56)

Vata dosha produces Gridhrasi characterized by Stiffness, Pain and Pricking sensation, starting from the Gluteal region, radiating

to the Lumbar region and back, which moves downwards in the way of Thigh, Knees, Calves and Feet, respectively. Rigidity and throbbing intermittently are also experienced. These are due to Vata Dosha only. If Kapha Dosha is associated, Drowsiness, Heaviness and Anorexia will be there. The signs and symptoms of Gridhrasi keep a close relationship with those of Sciatica, the neuralgia of the Sciatic Nerve.

Modern view on sciatica

Sciatica (Si-at-i-kah) (L) is a syndrome characterized by pain radiating from the back into the buttock and the lower extremity along its posterior and lateral aspect and most caused by the prolapsed intervertebral disc. The term is also used to refer to pain anywhere along the course of the Sciatic Nerve (Dorland's Medical Dictionary).

Pathology of sciatica

The causes of Sciatica are many and varied. Out of them, three primary reasons are seen. These are as follows.

- Disc Protrusion (bulging),
- Degenerative Changes and
- Disc Herniation.

Ayurvedic view on Raktamokshana

As we know, Panchakarma consists of five special therapeutic procedures, such as Vaman, Virechan, Vasti, Nasya and Raktamokshana. Raktamokshana is of six types: Shringavacharana, Jalaaukavacharana, Alabu Avacharana, Siravedha, Prachchhana and Ghatiyanttra. By combining the classical procedure of Prachchhan and Ghatiyanttra, a new procedure has been developed, called Multiple Vacuum Syringe Blood Aspiration Procedure (MVSABP). This procedure is applied in the disease, Gridhrasi vis-à-vis Sciatica.

Treatment (Chikitsa) of Gridhrasi

In most of the leading Ayurvedic texts, Siravedha (one type of Raktamokshana chikitsa of Panchakarma) is mentioned for the treatment of Gridhrasi. Siravedha should be performed either four fingers above the Janusandhi (Knee joint) or four fingers below it when the joint is kept flexed. According to this line of treatment, the Multiple Vacuum Syringe Blood Aspiration Procedure (MVSABP) is applied to treat Gridhrasi.

CLINICAL STUDY

Aims and objectives

1. To assess the effectiveness of the Raktamokshana procedure (Multiple Vacuum Syringe Blood Aspiration Procedure - MVSABP) among Gridhrasi patients.
2. To study the mechanism of the Raktamokshana procedure (Multiple Vacuum Syringe Blood Aspiration Procedure - MVSABP) among Gridhrasi patients.
3. To compare the efficacy of the Raktamokshana procedure (Multiple Vacuum Syringe Blood Aspiration Procedure - MVSABP) with traditional Ayurvedic Medicinal treatments among Gridhrasi patients.

Hypotheses

H₀: - There is no difference in efficacy of various parameters between two treatments at a different time of intervention.

H₁: - MVSABP, along with traditional treatment, is more effective than only traditional Ayurvedic Medicines at a different time of intervention.

MATERIALS AND METHODS

In this present procedure of Raktamokshana, the following materials are used.

- Disposable plastic syringe of 10 ml. size (specially designed): 5
- Pointed surgical blade of No. 11 size: 2
- Disposable needle of No. 18 size: 2
- Surgical Spirit: 1 bottle (50 ml)
- Cotton roll: 2 small bundles
- Bandage: 2 small rolls
- Micropore (1 inch width): 2 rolls
- Gloves (As per the hand size of the physician): 2 pairs
- Any anti septic gel of colloidal silver: 1 tube
- A.T.T. Inj. With syringe: 1 set

Selection of Patients

Irrespective of caste, creed, gender and religion, patients of Gridhrasi, coming to the OPD and IPD of the Hospital of Government P. G. Ayurveda College and Hospital, Varanasi, Uttar Pradesh, within the age group of 20 years to 60 years, are selected by simple random sampling method for experimental study.

Exclusion Criteria

- Patients below 20 years age and above 60 years of age.
- Patients of any infectious/contagious disease, skin disease, heart disease and diabetes mellitus etc.
- Patients with both hypertension and hypotension.
- Patients of any fatal diseases.
- Patients with psychological disorders.

Plan of the study

Total Number of selected patients:- 60.

Randomly, all patients are put in two groups, Group-A and Group- B, each consisting of 30 patients.

Group- A: - Traditional Ayurvedic Medicines.

Group- B: - Raktamokshana (MVSABP) and Traditional Ayurvedic Medicines.

Duration of treatment: 30 days in both groups.

Assessment (in both Groups)

1st assessment: - on 1st day.

2nd assessment: - on 15th day.

3rd assessment: - on 30th day.

Procedure applied in Raktamokshana

In Gridhrasi patients, the area below the medial malleolus of both the legs is selected for Raktamokshana, devoid of any visible vessels, bony parts and marma sthanas. First, a circle is made by

the ball-pen in that area to limit the circumference of the cut end of the disposable syringe. Then that area is cleaned with a surgical spirit soaked in the cotton piece. After the complete evaporation of the spirit, when skin becomes dry, within the circles, the skin is scrapped very superficially with the help of a pointed (No. 11 size) surgical blade, which bleeds automatically to a bit of bit. Immediately the cut end of the vacuum syringe is fixed on the skin, befitting the circle made by the ball-pen. By using five disposable syringes, maximum of up to 50 ml. of blood is aspirated. After 15 days, the same procedure is repeated on both sides of the vertebral column at the lumbosacral region.

Raktamokshan (MVSABP) from both sides of the vertebral column at the lumbosacral region follows.

OBSERVATION

Table 1: Statistical evaluation of effect of therapy Group-A

Group (A)		N	Mean Score	Std. Dev.	S.E.	Relief %	Wilcoxon(Z)	p-value	Results
Pain	BT	30	2.47	0.68	0.12	43.24	-4.10	<0.001	HS
	AT	30	1.40	1.07	0.20				
Joint Pain	BT	30	1.20	0.66	0.12	33.33	-3.00	0.003	S
	AT	30	0.80	0.71	0.13				
Tenderness	BT	30	1.10	0.48	0.09	39.39	-3.61	<0.001	HS
	AT	30	0.67	0.66	0.12				
Walking Aid	BT	30	0.33	0.61	0.11	10.00	-1.00	0.317	NS
	AT	30	0.30	0.60	0.11				
Joint Involvement	BT	30	1.57	1.01	0.18	27.66	-3.00	0.003	S
	AT	30	1.13	1.11	0.20				
Swelling	BT	30	1.20	0.71	0.13	41.67	-3.64	<0.001	HS
	AT	30	0.70	0.84	0.15				
Muscle Power	BT	30	0.20	0.41	0.07	50.00	-1.73	0.083	NS
	AT	30	0.10	0.31	0.06				

BT: Before Treatment, AT: After Treatment

Graph 1: Statistical evaluation of effect of therapy Group-A

Table 2: Statistical evaluation of effect of therapy Group-A

Group (A)	N	Mean Score	Std. Dev.	S.E.	Relief %	Wilcoxon(Z)	p-value	Results
Muscle Wasting	BT	30	0.27	0.52	25.00	-1.41	0.157	NS
	AT	30	0.20	0.48				
Posture	BT	30	1.13	0.51	44.12	-3.87	<0.001	HS
	AT	30	0.63	0.76				
Disability	BT	30	1.03	0.49	41.94	-3.61	<0.001	HS
	AT	30	0.60	0.72				
Aggravation of Pain	BT	30	1.23	0.63	62.16	-4.41	<0.001	HS
	AT	30	0.47	0.73				
SLR	BT	30	1.37	0.49	51.22	-4.19	<0.001	HS
	AT	30	0.67	0.80				
FNST	BT	30	0.20	0.41	50.00	-1.73	0.083	NS
	AT	30	0.10	0.31				

BT: Before Treatment, AT: After Treatment

Graph 2: Statistical evaluation of effect of therapy Group-A

Observation of Group-B

Table 3: Statistical evaluation of effect of therapy Group-B

Group (B)		N	Mean Score	Std. Dev.	S.E.	Relief %	Wilcoxon(Z)	p-value	Results
Pain	BT	30	2.57	0.63	0.11	85.71	-4.79	<0.001	HS
	AT	30	0.37	0.72	0.13				
Joint Pain	BT	30	0.60	0.50	0.09	83.33	-3.87	<0.001	HS
	AT	30	0.10	0.31	0.06				
Tenderness	BT	30	0.97	0.41	0.08	89.66	-4.74	<0.001	HS
	AT	30	0.10	0.31	0.06				
Walking Aid	BT	30	0.37	0.49	0.09	100.00	-3.32	0.001	S
	AT	30	0.00	0.00	0.00				
Joint Involvement	BT	30	0.90	0.96	0.18	77.78	-3.70	<0.001	HS
	AT	30	0.20	0.66	0.12				
Swelling	BT	30	0.70	0.47	0.09	80.95	-4.12	<0.001	HS
	AT	30	0.13	0.35	0.06				
Muscle Power	BT	30	0.30	0.53	0.10	88.89	-2.83	0.005	S
	AT	30	0.03	0.18	0.03				

BT: Before Treatment, AT: After Treatment

Graph 3: Statistical evaluation of effect of therapy Group-B

Table 4: Statistical evaluation of effect of therapy Group-B

Group (B)		N	Mean Score	Std. Dev.	S.E.	Relief %	Wilcoxon(Z)	p-value	Results
Muscle Wasting	BT	30	0.30	0.47	0.09	88.89	-2.83	0.005	S
	AT	30	0.03	0.18	0.03				
Posture	BT	30	1.17	0.38	0.07	94.29	-5.26	<0.001	HS
	AT	30	0.07	0.25	0.05				
Disability	BT	30	1.03	0.18	0.03	100.00	-5.40	<0.001	HS
	AT	30	0.00	0.00	0.00				
Aggravation of Pain	BT	30	1.53	0.68	0.12	95.65	-4.83	<0.001	HS
	AT	30	0.07	0.25	0.05				
SLR	BT	30	1.57	0.68	0.12	91.49	-4.84	<0.001	HS
	AT	30	0.13	0.35	0.06				
FNST	BT	30	0.10	0.31	0.06	66.67	-1.41	0.157	NS
	AT	30	0.03	0.18	0.03				

BT: Before Treatment, AT: After Treatment

Graph 4: Statistical evaluation of effect of therapy Group-B

Table 5: inter-Group comparison of symptoms

Complain	Percentage relief		Diff. in %age	Z test	P	Result
	Group A	Group B				
Pain	43.24	85.71	42.47	-3.44	<0.001	HS
Joint Pain	33.33	83.33	50.00	-3.93	<0.001	HS
Tenderness	39.39	89.66	50.26	-4.07	<0.001	HS
Walking Aid	10.00	100.00	90.00	-7.01	<0.001	HS
Joint Involvement	27.66	77.78	50.12	-3.89	<0.001	HS
Swelling	41.67	80.95	39.29	-3.12	<0.001	HS
Muscle Power	50.00	88.89	38.89	-3.27	<0.001	HS
Muscle Wasting	25.00	88.89	63.89	-5.00	<0.001	HS
Posture	44.12	94.29	50.17	-4.21	<0.001	HS
Disability	41.94	100.00	58.06	-4.95	<0.001	HS
Aggravation of Pain	62.16	95.65	33.49	-3.18	<0.001	HS
SLR	51.22	91.49	40.27	-3.45	<0.001	HS
FNST	50.00	66.67	16.67	-1.31	0.09	NS

Table 6: Result of both the Groups

S.N.	Results	Range	(Group A)		(Group B)		Total	
			No of Pt.	%	No of Pt.	%	No of Pt.	%
1	Maximum Improvement	75% & Above	8	26.67	14	46.67	22	36.67
2	Moderate Improvement	50 % to 75%	7	23.33	8	26.67	15	25.00
3	Mild Improvement	25% to 50%	12	40.00	6	20.00	18	30.00
4	No Improvement	25% & Less	3	10.00	2	6.67	5	8.33
	Total		30	100.00	30	100.00	60	100.00

Graph 5: Result of both the Groups

RESULT

Group- A

1. Maximum Improvement: - 08 Patients.
2. Moderate Improvement: - 07 Patients.
3. Mild Improvement: - 2 patients.
4. No Improvement: - 03 patients.

Group- B

1. Maximum Improvement: - 14 Patients.
2. Moderate Improvement: - 08 Patients.
3. Mild Improvement: - 06 patients.
4. No Improvement: - 02 patients.

DISCUSSION

From an Ayurvedic point of view, Vata dosa is a primary factor of pain in any type of disease. Vata Dosha becomes aggravated either due to Dhatu Kshaya or due to Margavarodha. In the case of Gridhrasi, Kapha Dosa, in its vitiated form, obstructs the minute channels causing srotavarodha. So it aggravates Vata Dosha in the body, thereby increasing pain in the body. In Raktamokshana, blood is aspirated from the nearby peripheral areas to the vacuum syringe.

Along with this blood, the vitiated kapha dosa, which creates srotavarodha, is also aspirated into the syringe, and blood circulation is re-established due to cleansing the channels. In this way, shodhana of both vata dosa and kapha dosha are done. Pitta dosa remains with rakta dhatu in the relation of Ashraya-Ashrayi bhava. So by the aspiration of blood (Rakta dhatu), shodhana of pitta dosa is also done. Ultimately Raktamokshana procedure by the vacuum syringe method performs the shodhana of tridosa (vata, pitta and kapha). By shodhana of vata dosa, the pain of the concerned disease (Gridhrasi-Sciatica) is relieved. This is a hypothesis regarding the relief of pain in the case of Gridhrasi.

From the modern point of view, pain occurs in Sciatica, either due to the cessation of blood circulation to a particular area or due to nerve compression at any place during its course of innervations. Some other factors of pain may be there in different conditions. But so far as the disease, Gridhrasi, are concerned. In this condition, by Raktamokshana procedure peripheral blood circulation is re-established to a great extent, and it eradicates the cessation of blood circulation to the area of congestion. In case of compression, when the blood circulation of a particular area becomes patent, the body's autoimmune system relieves the mechanical external compression to some extent. Thereby it relieves the pain.

CONCLUSION

MVSBAP, along with Traditional Medicine, is more effective than only Traditional Ayurvedic Medicines at a different intervention time. This is an outstanding effort of comparing the efficacy of Raktamokshana in Gridhrasi (Sciatica) patients through the Multiple Vacuum Syringe Blood Aspiration

Procedure (MVSBAP) than the traditional Ayurvedic Medicines. It will draw a new horizon for the ailing humanities.

REFERENCES

1. Charaka Samhita: Introduction by Padmabhusana Vaidya Sri Satyanarayan Shastri with elaborated Vidyotini Hindi Commentary by Pt. Kashinath Shastri and Dr Gorakhanatha Chaturvedi. Published by Chaukhambha Bharati Academy, Varanasi. Twelfth Edition 1984. Both Purvardha and Uttardha.
2. Sushruta Samhita: - Edited with Ayurveda Tatva Sandipika. Hindi Commentary, Notes etc., by Kaviraja Ambikadutta Shastri and Foreword by Dr Pranajivana Manekchanda Mehta. Published by Chaukhambha Sanskrit Sansthan, Varanasi. Seventh Edition 1989. Both Part-I and Part-II.
3. Ashtanga Hridaya: Edited with the Vidyotini Hindi commentary by Kaviraja Atrideva Gupta. Edited by Vaidya Yadunandana Upadhyaya. Published by Chaukhambha Sanskrit Sansthan, Varanasi. Eleventh Edition 1993.
4. Chakradatta: With Vidyotini Hindi Commentary by Dr. Indradev Tripathi. Editor Prof. Ramanath Dwivedy. Published by Chaukhambha Sanskrit Sansthan, Varanasi. Fourth Edition 2002.
5. Madhav Nidan: With the Madhukosha Sanskrit commentary by Sri Vijayarakshita and Srikanthadatta. Vidyotini Hindi commentary and Notes by Sri Sudarshan Shastri and Revised & edited by Prof. Yadunandana Upadhyaya. Seventeenth Edition 1987. Published by Chaukhambha Sanskrit Pratisthan, Varanasi. Both Part-I and Part-II.
6. Abhinava Chintamani of Mahamati Bhagawan Chakrapani Das: Editor-in-Chief Prof. G. S. Lavekar. Hindi Commentary by Acharya Tarachand Sharma. Published by Central Council for Research in Ayurveda and Siddha, New Delhi. Both Part-I and Part-II. First Publication in 2009.
7. Sarangadhara Samhita: Translated into English by Prof. K. R. Srikanta Murthy. Published by Chaukhambha Orientalia, Varanasi. Reprint Edition 2009.
8. Yogaratnakar: With Vidyotini Hindi Commentary by Vaidya Laxmipati Shastri and Edited by Bhisagratna Shribrahmashankar Shastri. Published by Chaukhambha Prakashan. Reprinted 2005.
9. Introduction to Kayachikitsa: By C. Dwarakanatha. Published by Chaukhambha Orientalia, Varanasi. Third Edition 1996.
10. Advances in Research in Indian Medicine: Edited by K. N. Udupa, G. N. Chaturvedi and S. N. Tripathi. Published by Banaras Hindu University, Varanasi in 1970.
11. Ayurveda Panchakarma Vigyan: Written by Vaidya Haridas Sridhar Kasture. Published by Baidyanath Ayurved Bhawan Pvt. Ltd. Third Edition 1985.

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