

A STUDY TO EVALUATE THE ROLE OF VATAVYADHI VIHARAJA NIDANAS IN THE CAUSATION OF VATAJA AND VATAKAPHAJA GRIDHRASI IN CURRENT LIFE STYLE

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ABSTRACT

As the advancement of busy professional schedule and life, everybody has to face hectic, competitive and stressful life. This life style and conditions puts more strain to spine and pelvis and plays a vital role in causation of backache and sciatica. *Gridhrasi* (Sciatica) is enumerated under *VatjaaNanatma-jaVikara* along with *kaphanubandha* in some circumstances. Etiology of *Gridhrasi* is not elucidated independently. Therefore, the general *VataVyadhiNidana* is considered as *Nidana* (Etiological factors) for *Gridhrasi*. Hence, there is a need to explore etiological factors of *Vataja* and *Vatakaphaja-Gridhrasi* from the *SamanyaVataVyadhiNidana*. In this study, total 188 patients were registered, among them 150 had *Vataja* and 38 had *VatakaphajaGridhrasi*. Among the *Nidanas*, sleeping and sitting in improper position, standing for long time, history of fall were found to be common among *Vataja* and *VatakaphajaGridhrasi* patients. Excessive exercise, forceful expulsion of urges, day sleep, carrying heavy loads, riding vehicle on uneven surface, walking for long time, injury to vital organs, swimming, working till one gets exhausted, sitting for long time in improper posture, jumping from height were found to be more common in *VatajaGridhrasi* patients. Working during night, suppression of natural urges, laughing loudly, talking continuously, history of bleeding were predominantly found in *VatakaphajaGridhrasi* patients.

Keywords: *Gridhrasi*, Sciatica, *VatajaGridhrasi*, *VatakaphajaGridhrasi*, *Nidana*, *DukhaAsana*.

INTRODUCTION

Back pain is a condition with 60-70% of the world's population experiencing pain at the same time in their lives. Only a small number of patients with back pain have a pathological-ly definable problem. All structures in the spinal column, other than cartilage are pain sensitive, but the exact production of pain within individual structures is unknown. A common clinical history from patients with sciatica includes a prodromal period of back pain and improves with the onset of leg pain. *Gridhrasi*, one among the *NanatmajaVata-vyadhi* is characterized by severe pain originating in *Katipradesha* (Low back region) and radiates towards *Pratyanguli* (Great toe) of the affected leg manifesting in patients with gait similar to *Gridhra* (vulture)¹. *Gridhrasi* is a condition where dysfunction of *Vata* affects *GridhrasiNadi* characterized by *Stabdhatta* (Pulsative feeling), *Ruk* (Pain), *Toda* (piercing pain), *Stambhana* (Stiffness) originating from *Sphik* (Upper back), *Kati* (Lower back) and *Prista* (Buttock) radiating through posterior aspect of the thigh, and the outer border of *Jangha* (Calf) upto *Pada* (foot)². Based on the *Dosha* participation, *Gridhrasi* is categorized into *Vataja* and *VatakaphajaGridhrasi*³. All the *Ayurvedic* classics including those written in medieval period have described the Etiopathogenesis and symptomatology of *Gridhrasi* in concise form. As per modern science, *Gridhrasi* can be correlated with sciatica due to its similarity in the symptom of pain radiating along the course of sciatic nerve and is felt in the low back, buttock, posterior aspect of thigh, leg and foot. Hence the study is undertaken to achieve the exact causative factors in the causation of *Gridhrasi* from the *Samanya-*

VataVyadhiNidanans wsr to *Vataja* and *Vatakaphaja Gridhrasi*.

AIMS AND OBJECTIVES

1. To evaluate the Etiological Factors of *Vataja Gridhrasi*.
2. To evaluate the Etiological Factors of *Vatakaphaja Gridhrasi*.

MATERIALS & METHODS:

Total 188 patients of *Gridhrasi* fulfilling the inclusion criteria, which includes 150 patients with *Vataja* and 38 with *VatakaphajaGridhrasi* were registered and detail history with examination was conducted with specially prepared proforma to evaluate the etiology of *Vataja* and *VatakaphajaGridhrasi* from the outpatient department and inpatient department of S.D.M. College of *Ayurveda* and Hospital, Hassan.

INCLUSION CRITERIA:

1. Patients of either sex in the age group between 16- 70 years were selected.
2. Patients suffering from *Vataja* and *Vatakaphaja Gridhrasi* were selected.

EXCLUSION CRITERIA:

1. *Katishoola*, *Khalli*, *Kanja*, *Pangu*, *Gudagatavata*, *Khalayakanja*, *Urustambha*.

COLLECTION, TABULATION AND STATISTICAL TESTS:

Data obtained during study was tabulated and statistically analyzed using Chi Square (Phi Cramers V) test. . Chi Square value (P value) > 0.05 indicates no significance and P value ranging from 0.05 to 0.01 indicates signific-

ance and < 0.01 indicates highly significant and V value ranging from -1.0 to -0.7 indicates strong negative association, -0.7 to -0.3 indicates weak negative association, -0.3 to +0.3 indicates mild association, +0.3 to +0.7 indicates weak positive association and +0.7 to +1.0 indicates strong positive association.

OBSERVATION AND RESULTS

In the present study, Role of *Samanya Vata Vyadhi Viharaja Nidana* leading to causation of *Vataja Gridhrasi* and *Vatakaphaja Gridhrasi* presented below based on observations on 188 patients result is presented as follows subjected to statistical analysis.

Table 01: Distribution based on Nidana

NIDANA	VATAJA GRIDHRASI		VATAKAPHAJA GRIDHRASI	
	Number	%	Number	%
ROOKSHA AHARA	67	44.7	10	26.32%
KATU AHARA	120	80%	24	63.16%
SHEETA AHARA	36	24%	8	21.05%
TIKTA AHARA	3	16%	3	7.89%
KASHAYA AHARA	24	30.03%	12	31.58%
GURU AHARA	65	47.33%	11	28.95%
ADHYASHANA	36	24%	8	21.05%
CHINTHA	48	32%	12	31.58%
SHOKA	18	12%	3	7.89%
BHAYA	68	45.33%	3	9.89%
EXCESSIVE EXERCISE	34	22.67	6	15.79%
WORK AT NIGHT	42	28%	11	28.95%
VEGADHARANA	51	34%	8	21.05%
VEGAUDHEERANA	22	14.67%	4	10.53%
BHARAVAHANA	43	28.67%	11	28.95%
RIDING VEHICLE ON UNEVEN SURFACE	76	50.67%	16	42.11%
DIWASWAPNA	100	66.67%	19	50%
DUKHA ASANA	50	33.33%	5	13.16%
DUKHA SHAYYA	43	28.67%	4	10.53%
EXCESS WALKING	38	25.33%	5	13.16%
LAUGHING LOUDLY	26	17.33%	2	7.895%
TALKING CONTINUOUSLY	24	16%	3	5.263%
JUMPING FROM HEIGHT	14	9.33%	3	7.895%
SWIMMING	45	30%	8	21.05%
WORK TILL EXHAUSTS	73	24.67%	8	29.05%
SITTING FOR LONG TIME	73	48.67%	13	34.21%
STANDING FOR LONG TIME	85	56.67%	12	31.58%
INJURY TO VITAL ORGANS	17	11.33%	2	5.263%
HISTORY OF BLEEDING	15	10%	7	18.42%
HISTORY OF FALL	42	28%	9	23.68%

In the present study, 41 patients were registered under *Vataja Gridhrasi* group belonged to the age group of 41-50 years ie 27.2%, followed by 40 (26.5%) patients belonged to age group 31-40 years. In *Vatakaphaja Gridhrasi* 11 (30.6%) patients each belonged to the age groups of 31-40 years and 41-50 years, followed by 7 (19.4%) patients belonged to age group 61-70 years. Maximum number of patients were males in both *Vataja* and *Vatakaphaja Gridhrasi* ie 97 (64.7 %) and 25 (65.48%) respectively. 73 (48.7%) patients

was affected with right leg in *Vataja Gridhrasi* group followed by 51 (34%) affected with left leg. In *Vatakaphaja* group, 20 (52.6%) were affected bilaterally followed by 9 (23.7%) patients each with right and left leg respectively. Maximum patients of 77 (51.3%) were *Vrudha* and 71 (47.3%) were *Madhyama Vaya* in *Vataja Gridhrasi* group. 26 (68.4%) patients were *Madhyama Vaya* followed by 11 (28.9%) patients were *Vrudha* in *Vatakaphaja Gridhrasi* group.

Table 02: Showing Result of *Nidana*

<i>Nidana</i>	Pearson's chi Square value	P-value	Significance	V- value	Association
<i>Ativyayama</i> (Excess exercise)	0.956	0.355	NS		
Work at night	3.562	0.908	NS		
<i>Vegadharana</i> (Suppression of natural urges)	3.449	0.063	NS		
<i>Bharavahana</i> (Carrying heavy load)	0.001	0.973	NS		
Riding vehicle on uneven surface	0.889	0.346	NS		
<i>Diwaswapna</i> (Day sleep)	3.625	0.057	NS		
<i>Dukha asana</i> (Sleeping in improper posture)	5.963	0.015	S	-0.178	Little /no association
<i>Dukha shayya</i> (Sitting in improper posture)	5.321	0.021	S	-0.168	Little /no association
Excess walking	2.548	0.110	NS		
Laughing loudly	3.485	0.062	NS		
Talking continuously	0.188	0.665	NS		
Jumping from height	0.076	0.782	NS		
Swimming	1.821	0.610	NS		
Work till one gets exhausted	0.218	0.641	NS		
Sitting for long time	2.553	0.110	NS		
Standing for long time	7.641	0.006	HS	-0.202	Little /no association
Injury to vital organs	1.230	0.267	NS		
History of bleeding	2.081	0.149	NS		
History of fall	7.815	0.005	HS	0.204	Little /no association

Dukha Asana (Sitting in improper posture) showed significance with P value 0.015 and V value -0.178. *Dukha Shayya* (Sleeping in improper posture) showed significance with P value 0.021 and V value -0.168. Standing for long time showed high significance with P value 0.006 and V value -0.202. History of fall showed high significance with P value 0.005 and V value 0.204. Excessive exercise showed non-significant with P value 0.355. Work at night showed non-significant with P value 0.908. *Vegadharana* showed non-significant with P value 0.063. *Vegaudheerana* (forceful expulsion of natural urges) showed non-significant with P value 0.059. *Bharavahana* (Carrying heavy load) showed non-significant with P value 0.973. Riding vehicle on uneven surface showed non-significant with 0.346. Excessive exercise showed non-significant with 0.335. Laughing loudly showed non-significant with P value 0.346. Talking continuously showed non-significant with P value 0.665. Jumping from height showed non-significant with P value 0.782. Swimming showed with non-significance with P value 0.610. Sitting for long time showed non-significant with P value 0.110. Injury to vital organs showed non-significant with P value 0.267. History of bleeding showed non-significant with P value 0.149.

DISCUSSION

Gridhrasi is a disorder dominated by pain affecting the *Kandara*. It is caused by *Vata Dosh* and sometimes *Kapha Dosh* is involved in the clinical presentation. The *PrakupitaDosh* afflicts the *Kandara* (Nerves), *Snayu* (Ligaments), *Asthi* (Bone) and *Mamsa* (Muscles)

involving the related *Srotases* (Channels). Disease being one among eighty types of *Nanatmaja Vatavyadhis* has no specific *Nidana* (Etiological factors) and *Samprapti* (Pathogenesis) mentioned separately. Onset of *Ruk* (Pain) initially in *Sphik* (Upper back) region and radiating distally to *Kati* (Lower back), *Prista* (Buttock), *Janu* (Knee region) and *Jangha* (Calf Muscle) till *Pada* (Foot) is the unique feature of *Gridhrasi*. In the study maximum numbers of patients were male. This may be because they indulged in agriculture, possibly subjected to more physically strenuous work resulting in *Gridhrasi*. Performing excessive exercise is *VataPrakopaka* and *Kaphahara*. *PrakupitaVata* moves through the *Srotas* and attains *Stanasamsraya* in *KatiPradesha* and it particularly afflicts *KatiPradesha*. Hence greater pressure and strain on lumbar joints precipitates disc lesions leading to *Gridhrasi*. Working or staying awake at night is *VataPrakopa* and produces *Rookshata* (Dryness) in *SarvaShareera* (Whole body) which may produce *Vatavyadhi*⁴. Suppression and forceful expulsion of urges mainly *Mootra* (Urine) and *Purisha* (Feaces) can lead to *Prakaopa* (Aggravation) of *Vatadosha* especially *ApanaVata*. This *PrakupitaApanaVata* result in *Anaha* and *Pindikodwehtanam*⁵. Sleeping during daytime is *Abhishyandhikara* which leads to *Margavarodha* in *AsthiMajjaVahaSrotas* in the *KatiPradesha* and contributes to *Gridhrasi*. Carrying heavy load may lead to *Vataprakopa* and puts pressure on *KatiPradesha*⁶. Attempting to lift and twist with heavy loads cause intervertebral disc rupture in lumbar region. Excessive compression load may act on the nucleus pulposus which may cause

disc degeneration, vertical compression of spinal segments etc. Along with this any trauma will suddenly increase pressure and result in rupture of annulus fibroses leading to irritation or compression over sciatic nerve. Riding vehicle on uneven surface like travelling in chariot, animal causes pain in *Shphik, Prista, Kati, Vamkshana* etc⁷. Sleeping and sitting in improper position can lead to *Vataprakopa* and produces similar symptoms produced by riding vehicle on uneven surface⁸.

CONCLUSION

From the present study based on observations and results followed by discussion, following conclusions are drawn. *Ayurvedic Classics* emphasized *Vata* as the main *Dosha* in causation of *Gridhrasi* and sometimes *Kaphanubandha* is present. This is observed in present clinical study as maximum no. of patients showed *VataPrakopakaHetus* as the cause. Among *Viharas* (Activities), sitting and sleeping in improper position, standing for long time, history of fall was statistically significant shows its role as etiology in both *Vataja* and *Vatakaphaja-Gridhrasi*. Excessive exercise, forceful expulsion of natural urges, day sleep, carrying heavy loads, riding vehicle on uneven surface, excess walking, injury to vital organs, swimming, working till one gets exhausted, sitting for long time, jumping from height showed statistically non-significant result with incidence more in *VatajaGridhrasi*, Working at night, suppression of natural urges, laughing loudly, talking continuously, history of bleeding showed statistically non-significant result with incidence rate more in *VatakaphajaGridhrasi* patients. From the present study, it may

be concluded that *SamanyaVataVyadhi Nidana* is dominantly observed in *Vataja Gridhrasi* compared to *Vatakaphaja Gridhrasi*. Hence, apart from *SamanyaVatavyadhiNidana* there must be added role of other *KaphaVardhaka-Nidana* in causation of *VatakaphajaGridhrasi*.

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