



CLINICAL SIGNIFICANCE OF ROGAMARGA IN ASSESSING ROGA SADHYATVA: A CROSS-SECTIONAL STUDY

Dr. Shihabudheen Gurukkal C H^{1*}, Dr. Arun Vaidya², Dr. Hemant D Toshikhane³

¹*PhD Scholar, Dept of Ayurveda Samhitha and Sidhantha, Parul Institute of Ayurveda, Parul University, Vadodara, Gujarat, Email: dgurukkal@gmail.com

²Professor, Dept of Ayurveda Samhitha and Sidhantha, Parul Institute of Ayurveda, Parul University, Vadodara, Gujarat, Email: arun.vaidya@paruluniversity.ac.in

³Dean & Principal, Faculty of Ayurveda, Parul University, Vadodara, Gujarat, Email: hemant.toshikhane@paruluniversity.ac.in

**Corresponding Author: dgurukkal@gmail.com*

Received: 03/06/2026 Revised: 04/07/2026 Acceptance: 11/07/2026 Published: 18/07/2026

ABSTRACT

Background: Rogamarga is an important concept in Ayurveda describing the pathway or site of disease manifestation and is classified as Bahya, Madhyama, and Abhyantara Rogamarga. It may also be understood as an anatomical framework for disease localization, with different Rogamargas reflecting physiological functions that influence disease progression and prognosis. The present study evaluated the clinical role of Trividha Rogamarga in prognosis and treatment and its relationship with Sadhya–Asadhyata.

Objectives: To evaluate individual Rogamarga Lakshanas and their Sadhya–Asadhyata, assess the relationship of Rogamarga with Sadhyasadhyata and Chikitsa, identify the factors influencing Sadhya–Asadhyata, and determine the predominantly affected Rogamarga.

Materials and Methods: A cross-sectional study was conducted among 511 participants attending the OPD, IPD, and health camps of Sri Sri College of Ayurvedic Science and Research Hospital, Cuttack. Participants were assessed using predesigned case proforma and were categorized according to Rogamarga. Clinical Lakshanas were assessed on Day 1 and Day 15. Data were analyzed using appropriate statistical tests.

Results: Madhyama Rogamarga was the predominantly observed Rogamarga, followed by Abhyantara and Bahya Rogamarga. Significant association was observed between Rogamarga and Sadhya–Asadhyata ($\chi^2 = 12.961$, $p < 0.001$). Krichha Sadhya predominated in Madhyama Rogamarga, and Sukha Sadhya predominated in Abhyantara Rogamarga.

Conclusion: Rogamarga shows a significant relationship with Sadhya–Asadhyata. Correlating Rogamarga with modern anatomy and physiology may enhance disease localization, prognostic evaluation, and treatment planning while preserving Ayurvedic principles.

Keywords: Rogamarga; Trividha Rogamarga; Sadhya–Asadhyata; Chikitsa.



1. Introduction

Ayurveda is one of the traditional medicinal systems of India¹. Ayurveda describes disease manifestation through various fundamental principles that help in understanding the nature, progression, prognosis, and management of disease². Among these, Rogamarga represents the pathways through which a disease manifests. It is classified into three categories, namely Bahya, Madhyama, and Abhyantara Rogamarga³. From an anatomical perspective, Bahya Rogamarga primarily corresponds to superficial tissues such as the skin and its associated structures, Madhyama Rogamarga is related to musculoskeletal components including bones, joints, muscles, ligaments, and connective tissues. In contrast, Abhyantara Rogamarga encompasses the internal visceral organs and body cavities responsible for maintaining vital physiological functions. Though these correlations do not indicate any equivalence between the terms used in Ayurveda and those in modern biomedicine, they offer a useful anatomy-related approach to disease location and development.⁴ The identification of these Rogamarga is an integral part of diagnosing diseases because diseases of different Rogamargas have distinct clinical features and treatment methods.⁵

Sadhya–Asadhyata, ie: assessment of disease prognosis, is another core principle in Ayurvedic clinical practice⁶. This is influenced by multiple factors, including Nidana Panchaka, Dosha–Dushya, Desha, Bala, Kala, and Rogamarga⁷. The physiological significance of Rogamarga lies in the fact that progression of disease through different Rogamargas may affect normal physiological functions depending on the anatomical structures involved. Disorders involving Bahya Rogamarga may predominantly impair the protective and sensory functions of superficial tissues, diseases affecting Madhyama Rogamarga commonly interfere with movement, posture, stability, and locomotion through involvement of the musculoskeletal system. In contrast, diseases involving Abhyantara Rogamarga may disrupt physiological processes such as digestion, respiration, circulation, metabolism, and organ function. Consequently, the anatomical location and extent of disease involvement may influence functional impairment, disease progression, therapeutic planning, and overall clinical prognosis. The selection of appropriate Chikitsa (treatment) requires a clear understanding of the nature and extent of disease involvement⁸. Hence, evaluation of the affected Rogamarga has practical relevance in both prognostic assessment and therapeutic decision-making.

Although Trividha Rogamarga is well recognized as a fundamental concept in Ayurveda, its relationship with Sadhya–Asadhyata requires systematic clinical evaluation. Rogamarga has also been described as an important clinical and therapeutic indicator that assists in understanding disease localization, progression, prognosis, and the selection of appropriate management strategies.⁵ Additionally, the integration of Rogamarga with well-known physiological principles of modern anatomical and physiological sciences offers a wider scope of science-based view for understanding the localization of disease, physiological dysfunction, and the prognosis of disease without changing the essence of its classical definition. This would help to better understand the significance of Rogamarga clinically and in making the clinical assessment and treatment plan.⁹ Assessment of individual Rogamarga Lakshanas and their clinical behaviour will also further contribute to understanding the prognostic significance of Rogamarga.

Therefore, the present study was undertaken to analyze the concept of Rogamarga, evaluate the Lakshanas of individual Rogamargas, and assess their relationship with Sadhya–Asadhyata.

Materials and Methods

Study Design: Hospital-based cross-sectional observational study.

Study Setting: Outpatient and Inpatient Departments of Sri Sri College of Ayurvedic Science and Research Hospital, Cuttack, Odisha.

Study Population: Patients attending the OPD and IPD who fulfilled eligibility criteria.

Inclusion Criteria: Age 18–60 years, irrespective of gender, religion, cast etc; and were willing to



provide written informed consent form.

Exclusion Criteria: Patients below 18 years or above 60 years; Those having history of organ implantation/amputation; those on immunosuppressive or steroid therapy; multidrug therapy; drug allergy; those who were unwillingness to participate.

Sample Size: 511 participants.

Sampling Technique: Direct sampling method.

Study Tool and Validation: A structured questionnaire was developed after extensive review of Rogamarga in Ayurvedic literature. The questionnaire was evaluated and validated by experts in Ayurveda Siddhanta and Samhita across the country. Questionnaire was finalized after incorporating their recommendations.

Ethical Considerations: Ethical approval was obtained from the Institutional Ethics Committee (SSCASRH/IEC/003/22; 11 February 2022). Written informed consent was collected from all participants.

Participant Recruitment:

Patients fulfilling the inclusion criteria and provided written informed were enrolled in the study.

Following enrolment, a detailed clinical history was collected. The assessment was done using structured case proforma and questionnaire designed based on the Lakshanas and assessment criteria described in Ayurveda.

Participants subsequently followed the treatments as prescribed by the attending Ayurvedic physician. During follow-up, all participants underwent reassessment to evaluate improvement in disease condition.

The collected observations were used for a critical evaluation of the relationship between Rogamarga, Sadhya-Asadhyata, and Chikitsa as described in the Ayurvedic classics.

Statistical Analysis:

The collected data were statistically analyzed using SPSS software version 23.

Wilcoxon Signed Rank Test, Crosstab analysis & Kruskal–Wallis test were used for analysis.

Results

Among 511 participants enrolled in this study, Madhyama Rogamarga was identified in 320 (62.6%) participants, Abhyantara Rogamarga in 153 (29.9%), and Bahya Rogamarga in 38 (7.4%).

Demographically, the majority were of subjects were males, belonging to the 36–45 year age group, were graduates (educational qualification), and belonged to the middle socioeconomic class.

TABLE 01- Age wise distribution of identified Rogamarga in study

	Sakhagata (Bahya Rogamarga)	Marmaasthisandhi (Madhyama Rogamarga)	Koshtha (Abhyantara Rogamarga)	Total
Male	24 (7.4%)	207 (64.1%)	92 (28.5%)	323 (63.8%)
Female	14 (7.4%)	113 (60.1%)	61 (32.4%)	188 (36.2%)

**TABLE 02- Showing occupation of participants**

	Bahya Rogamarga	Madhyama Rogamarga	Abhyantara Rogamarga	Total
Student	10 (26.3%)	06 (1.9%)	22 (14.4%)	38 (7.4%)
Housewife	2 (5.3%)	61(19.1%)	18 (11.8%)	81(15.9%)
Farmer	1(2.6%)	44 (13.8%)	10 (6.5%)	55 (10.8%)
Business	7 (18.4%)	51(15.9%)	48 (31.4%)	106 (20.7%)
Job	10 (26.3%)	107 (33.4%)	34 (22.2%)	151 (29.5%)
Others	8 (2.1%)	51(15.9%)	21(13.7%)	80 (15.7%)

TABLE 03- Showing Education status of study Population

Education Level	Bahya Rogamarga	Madhyama Rogamarga	Abhyantara Rogamarga	Total
Uneducated	2 (5.3%)	12 (3.8%)	2 (1.3%)	16 (3.1%)
High school	1 (2.6%)	63 (19.7%)	20 (13.1%)	84 (16.4%)
Intermediate	1 (2.6%)	46 (13.8%)	21 (13.7%)	66 (12.9%)
Graduation	34 (89.5%)	179 (55.9%)	106 (69.3%)	319 (62.4%)
Postgraduation	0 (0%)	22 (6.9%)	4 (2.6%)	26 (5.1%)

TABLE 04- Showing Economic status of study population

	Bahya Rogamarga	Madhyama Rogamarga	Abhyantara Rogamarga	Total
Poor	6 (15.8%)	79 (24.7%)	39 (21.6%)	118 (23.1%)
Middle Class	25(65.8%)	192 (60%)	95 (62.1%)	312 (61.1%)
Lower Class	7 (18.4%)	49 (15.3%)	25 (16.3%)	81 (15.9%)

TABLE 05- Source of Data

	Bahya Rogamarga	Madhyama Rogamarga	Abhyantara Rogamarga	Total
OPD	37 (97.4%)	268 (83%)	146 (95.4%)	451(88,3%)
IPD	1 (2.6%)	47 (14.7%)	3 (2%)	51(10%)
Special camp	0 (0%)	05 (1.6%)	04 (2.6%)	09 (1.8%)

Clinical Assessment of Bahya Rogamarga

38 participants were classified under Bahya Rogamarga .The distribution of clinical features on Day 1 demonstrated a predominance of Rakta Tamra Varna and Kandu. Among them Rakta Tamra Varna was the most frequently observed feature (73.7%). This indicates that changes in skin colour was



prominently found among participants categorized under Bahya Rogamarga. Kandu was another major manifestation, found in 63.2% of the participants. Ghana Peedaka was the next frequently observed manifestation that was present in 34.2% of participants. Scaly skin and Asweda were each identified in 23.7% of the participants. Kinakara Sparsha was observed in 7.9% of the participants. Aruna Varna was present in only 5.3% of participants with mild severity during the initial assessment. Detailed distribution of all assessed clinical manifestations across Day 1 and Day 15, along with their statistical analysis, is given in the table 06.

TABLE 06- Bahya Rogamarga

SYMPTOMS	GRADING	DAY 1	DAY 15	WILCOXON SIGN RANK TEST
SCALY SKIN	Absent	30 (78.9%)	30 (78.9%)	Z = -2.449 P= 0.014
	Mild	00	06 (15.9%)	
	Moderate	08 (21.1%)	02 (5.3%)	
KINAKARA SPARSHA	Absent	35 (92.1%)	35 (92.1%)	Z = -1.414 P= 0.157
	Mild	00	02 (5.3%)	
	Moderate	03 (7.9%)	01 (2%)	
ASWEDA	Absent	29(76.3%)	29 (76.3%)	Z = -2.000 P= 0.046
	Mild	03 (7.9%)	07 (18.4%)	
	Moderate	06 (15.8%)	02 (5.3%)	
KANDU	Absent	07 (18.4%)	14 (36.8%)	Z = -4.481 P= 0.000
	Mild	10 (26.3%)	21 (55.3%)	
	Moderate	21 (55.3%)	03 (7.9%)	
ARUNA VARNA	Absent	32 (84.2%)	36 (94.7%)	Z = -2.236 P= 0.025
	Mild	05 (13.2%)	02 (5.3%)	
	Moderate	01 (2.6%)	00	
RAKTA TAMRA VARNA	Absent	23 (60.5%)	10 (26.3%)	Z = -1.877 P= 0.061
	Mild	03 (7.9%)	22 (57.9%)	
	Moderate	12 (31.6%)	04 (10.5%)	
	Severe		02 (5.3%)	
THICK SKIN	Absent	37 (97.4%)	37 (97.4%)	Z = 0.000 P= 1.000
	Mild	00	00	
	Moderate	01 (2.6%)	01 (2.6%)	
GHANA PEEDAKA	Absent	24 (63.2%)	25 (65%)	Z = -3.162 P= 0.002
	Mild	03 (7.9%)	11 (28.9%)	
	Moderate	11 (28.9%)	02 (5.3%)	

Clinical Assessment of Madhyama Rogamarga

Among the total 511 study subjects, 320 (62.6%) were categorized under Madhyama Rogamarga, making it the most predominant Rogamarga identified in the present study with Sthambha as one of the most prominent symptoms (42.5%). Shotha was another frequently observed in 18.1% of participants. Shula (15.4%), Toda (11.8%), Urusthambha (8.1%) were other major observations in Madhyama Rogamarga along with other manifestations like facial weakness, difficulty in speech, muscle twitching, Bhrama and Sosha, which were comparatively uncommon. A detailed distribution of all the assessed clinical manifestations on Day 1 and Day 15, along with their statistical analysis, is presented in the table 07.

**TABLE 07- Madhyama Rogamarga**

SYMPTOMS	GRADING	DAY 1	DAY 15	WILCOXON SIGN RANK TEST
SHULA	Absent Mild Moderate	251 (78.4%) 44 (6.2%) 05 (1.6%)	271 (84.7) 44 (13.8) 05 (1.6)	Z = -7.758 P= 0.000
STHAMBHA	Absent Mild Moderate	124 (38.8%) 101 (31.6%) 95 (29.7%)	184 (57.5%) 114 (35.6%) 22 (6.9%)	Z = -15.447 P= 0.000
SHABDA	Absent Mild Moderate	279 (87.2%) 11 (3.4%) 30 (9.4%)	281 (87.9%) 38 (11.9%) 01 (0.1%)	Z = -5.568 P= 0.000
FACIAL WEAKNESS	Absent Mild Moderate	314 (98.1%) 01 (0.3%) 05 (1.6%)	315 (98.4%) 05 (1.6%) 00 (0.1%)	Z = -2.449 P= 0.014
DIFFICULTY IN SPEECH	Absent Mild Moderate	311 (97.2%) 01 (0.3%) 08 (2.5%)	311 (97.2%) 04 (1.2%) 05 (1.6%)	Z = -1.1782 P= 0.085
MUSCLE TWITCHING	Absent Mild Moderate	316 (98.8%) 01 (0.3%) 03 (0.9%)	316 (98.8%) 02 (0.6%) 02 (0.6%)	Z = -1.000 P= 0.0317
TODA	Absent Mild Moderate	271 (85%) 21 (6.6%) 27 (8.46%)	282 (88.1%) 36 (11.2%) 02 (0.6%)	Z = -5.754 P= 0.000
BHRAMA	Absent Mild Moderate	309 (96.6%) 09 (2.8%) 02 (0.6%)	318 (99.4%) 01 (0.3%) 01 (0.3%)	Z = -3.162 P= 0.002
URUSTHAMBHA	Absent Mild Moderate Severe	294 (91.9%) 05 (1.6%) 20 (6.2%) 1 (0.3%)	294 (91.9%) 18 (5.6%) 08 (2.5%)	Z = -3.742 P= 0.000
SOSHA	Absent Mild Moderate	317 (99.1%) 00 03 (0.9%)	317 (99.1%) 01 (0.3%) 02 (0.6%)	Z = -1.000 P= 0.317
SHOTHA	Absent Mild Moderate	236 (73.8%) 41 (12.8%) 43 (13.4%)	262 (81.9%) 55 (17.2%) 03 (0.9%)	Z = -7.889 P= 0.000



PAIN SUNLIGHT SOUND	Absent Mild Moderate	310 (96.9%) 06 (1.9%) 04 (1.2%)	316 (98.8%) 04 (1.2%) 00	Z = -3.162 P= 0.002
NISTHODA	Absent Mild Moderate	314 (98.1%) 04 (0.2%) 02 (0.6%)	316 (98.8%) 03 (0.9%) 01 (0.3%)	Z = 1.732 P= 0.083
SANDHISHULA	Absent Mild Moderate	301 (94.1%) 01 (0.3%) 18 (5.6%)	301 (94.1%) 16 (5%) 03 (0.9%)	Z = 0.2875 P= 0.014
SUPTA	Absent Mild Moderate	304 (95%) 11 (3.4%) 05 (1.6%)	306 (95.6%) 13 (4.1%) 01 (0.3%)	Z = -2.449 P= 0.014
REFERED PAIN	Absent Mild Moderate	315 (98.4%) 03 (0.9%) 02 (0.6%)	317 (99.1%) 03 (0.9%) 00 (0.1%)	Z = -2.000 P= 0.046
AMSHASHULA	Absent Mild Moderate	293 (91.9%) 03 (0.9%) 24 (7.5%)	294 (91.9%) 22 (6.3%) 04 (1.2%)	Z = -3.900 P= 0.000
JANUSANDHI SHULA	Absent Mild Moderate	238 (74.4%) 58 (18.1%) 24 (7.5%)	229 (71.6%) 20 (6.2%) 71 (2.2%)	Z = -7.199 P= 0.000
KATISHULA	Absent Mild Moderate	246 (76.9%) 63 (19.7%) 11 (3.4%)	266 (83.1%) 26 (8.1%) 28 (8.8%)	Z = -8.251 P= 0.000
KARMAHANI	Absent Mild Moderate	266 (83.1%) 26 (9.1%) 28 (4.1%)	273 (86.3%) 29 (9.1%) 13 (4.1%)	Z = -5.014 P= 0.000
CHESTANASA	Absent Mild Moderate Severe	183 (57.2%) 80 (25%) 56 (17.5%) 01 (0.3%)	220 (68.8%) 86 (26.9%) 14 (4.4%)	Z = -8.586 P= 0.000
MANYASTHAMBHA	Absent Mild Moderate	298 (93.1%) 13 (4.7%) 07 (2.2%)	310 (96.9%) 08 (2.5%) 02 (0.6%)	Z = -3.400 P= 0.001

Clinical Assessment of Abhyantara Rogamarga

153 participants (29.9%) were classified under Abhyantara Rogamarga (Koshtha Rogamarga). The Day 1 clinical profile showed a predominance of gastrointestinal manifestations, with Aruchi as the most prominent symptom (in 43.8% of participants). This was followed by Hritkantha Daha (in 26.1% of participants), Kasa (24.2%), Adhmana (17.6%), Chhardi (15.7%), Dourbalya (12.4%),



Shirogourava(7.2%) and Bahumutrata (7.2%), Shirashoola (6.5%), Jwara(6.5%) etc.

During Day 15 follow-up, statistically significant changes in symptom grading were observed in the most of the assessed parameters. But Alpamutrata and Dravamala showed no statistically significant change. A detailed distribution of all the assessed clinical manifestations on Day 1 and Day 15, along with their statistical analysis, is given in the table 08.

TABLE 08- Abhyantara Rogamarga

SYMPTOMS	GRADING	DAY 1	DAY 15	WILCOXON SIGN RANK TEST
DOURBALYA	Absent Mild Moderate	134 (87.6%) 09 (5.9%) 10 (6.5%)	144 (94.1%) 08 (5.2%) 01 (0.7%)	Z = -4.146 P= 0000
KASA	Absent Mild Moderate	116 (75.8%) 28 (18.3%) 09 (5.9%)	145 (94.8%) 08 (5.2%) 00	Z = -6.008 P= 0.000
SWASA KRICHA	Absent Mild Moderate	142 (92.2%) 09 (5.9%) 02 (1.3%)	141 (92.2%) 09 (5.9%) 03 (2.1%)	Z = -4.707 P= 0.000
WHEEZING	Absent Mild Moderate	141 (92.9%) 09 (5.9%) 03 (2%)	150 (98%) 03 (2%) 00	Z = -3.464 P= 0.000
AVIPAKA	Absent Mild Moderate	144 (94.1%) 06 (3.9%) 03 (2%)	150 (98%) 03 (2%)	Z = -3.000 P= 0.003
UTKLEDA	Absent Mild	147 (96.1%) 06 (3.9%)	152 (99.3%) 01 (0.7%)	Z = -1.890 P= 0.059
TIKTAMLA UDGARA	Absent Mild Moderate	128 (83.7%) 21 (13.7%) 04 (2.6%)	149 (97.4%) 04 (2.6%) 00 (0.1%)	Z = -5.000 P= 0.000
HRITKANTHA	Absent	113	127	Z = -4.837



DAHA	Mild Moderate	(73.9%) 14 (9.2%) 26 (17%)	(83%) 21 (13.7%) 05 (3.3%)	P= 0.000
BAHUMUTRATA	Absent Mild Moderate	142 (92.8%) 02 (1.3%) 09 (5.9%)	144 (94.1%) 08 (5.2%) 01 (0.7%)	Z = -3.162 P= 0.002
KARAPADA DAHA	Absent Mild Moderate	148 (96.7%) 0 (0.1%) 05 (3.3%)	148 (96.7%) 04 (2.6%) 01 (0.7%)	Z = -2.000 P= 0.046
ADHMANA	Absent Mild Moderate	126 (82.4%) 25 (16.3%) 02 (1.3%)	153 (100%) 00 00	Z = -5.03 P= 0.000
ARUCHI	Absent Mild Moderate	86 (56.2%) 57 (37.3%) 10 (6.5%)	145 (94.8%) 08 (5.2%) 0 (0.1%)	Z = -7.518 P= 0.000
JWARA	Absent Mild Moderate	143 (93.5%) 09 (5.9%) 01 (0.7%)	153 (100%) 00 00	Z = -3.051 P= 0.002
CHHARDI	Absent Mild Moderate	129 (84.3%) 23 (15%) 01 (0.7%)	152 (99.3%) 01 (0.7%) 0 (0.1%)	Z = -4.899 P= 0.000
BHRAMA	Absent Mild Moderate	147 (96.1%) 05 (3.3%) 01 (0.7%)	152 (99.3%) 01 (0.7%) 0 (0.1%)	Z = -2.449 P= 0.014
ANIDRA	Absent Mild Moderate	147 (96.1%) 05	151 (98.7%) 02	Z = -2.236 P= 0.025



		(3.3%) 01 (0.7%)	(1.3%)	
MALABADHHATA	Absent Mild Moderate	124 (81%) 22 (14.4%) 07 (4.6%)	148 (96.7%) 05 (3.3%)	Z = -5.070 P= 0.000
DAHA	Absent Mild Moderate	145 (94.8%) 08 (5.2%) 00	153 (100%) 00 00	Z = -2.828 P= 0.005
GOURAVA	Absent Mild	152 (99.3%) 01 (0.7%)	152 (99.3%) 01 (0.7%)	Z = 0.000 P= 1.000
ANGAMARDA	Absent Mild Moderate	148 (96.7%) 04 (2.6%) 01 (0.7%)	152 (99.3%) 01 (0.7%) 00	Z = -2.263 P= 0.025
LALASRAVA	Absent Mild	149 (97.4%) 04 (2.6%)	153 (100%) 00	Z = -2.000 P= 0.046
KSHAWATHU	Absent Mild	148 (96.7%) 05 (2.3%)	153 (100%) 00	Z = -2.236 P= 0.025
SHIRASHOOLA	Absent Mild	143 (93.5%) 10 (6.5%)	153 (100%)	Z = -3.10 P= 0.02
SHIROGOURAVA	Absent Mild	142 (92.8%) 11 (7.2%)	151 (98.7%) 02 (1.3%)	Z = -2.496 P= 0.013
ALPAMUTRATA	Absent Mild Moderate	150 (98%) 02 (1.3%) 01 (0.7%)	151 (98.7%) 01 (0.7%) 01 (0.7%)	Z = -0.378 P= 0.705
DRAVAMALA	Absent Mild	151 (98.1%) 02 (1.3%)	153 (100%) 00	Z = -1.414 P= 0.157



Assessment of Sadhya–Asadhyata

The prognosis (Sadhya–Asadhyata) of the enrolled participants was assessed and were classified into Sukha Sadhya, Krichha Sadhya, Yapya, and Asadhyata. Various clinical variables, like past medical history, medicinal history, surgical history, family history, Vyadhi Shankara, Upashaya, and triggering factors, were analyzed to determine their association with Sadhyasadhyata.

Distribution of Sadhya–Asadhyata According to Past Medical History

Past medical history was evaluated to determine its influence on prognosis. Participants without any previous medical illness constituted much of the study population. Among these individuals, 188 participants (41.6%) were categorized as Sukha Sadhya, 245 (54.2%) as Krichha Sadhya, 18 (4.0%) as Yapya, and 1 participant (0.2%) as Asadhyata.

Among the participants with hypertension, 43.5% were classified as Krichha Sadhya and 47.8% belonged to the Yapya. Similarly, 59.4% participants with diabetes mellitus predominantly belonged to the Yapya category and only a small proportion were categorized as Sukha Sadhya.

Kruskal–Wallis analysis shows a highly statistically significant association between past medical history and Sadhya–Asadhyata ($\chi^2 = 167.407$, $p < 0.001$), indicating that the presence of previous medical illness is significantly associated with the Sadhya-asadhyata.

TABLE 09- PAST MEDICAL HISTORY AND SADHYAASADHYATA					
PMH	SUKHA SADHYA	KRICHHA SADHYA	YAPYA	ASADHYA	TOTAL
Absent	188 (41.6%)	245 (54.2%)	18 (4%)	01 (2%)	452 (100%)
HTN	02 (8.7%)	10 (43.5)	11 (47.8%)	00	23
DM	01 (3.7%)	09 (33.3%)	16 (59.31%)	01 (3.7%)	27
TH	00	00	01 (100%)	00	01 (100%)
SKIN DISEASE	00	00	02 (100%)	00	02 (100%)
DM+HTN	00	01 (50%)	01 (50%)	00	01 (100%)
OTHERS	00	02 (50.1%)	02 (50.1%)	00	04 (50.1%)
Kruskal Wallis Test – $\chi^2 = 167.407$, $p=0.000$					

Distribution of Sadhya–Asadhyata According to Medicinal History

Participants were further classified based on presence or absence of previous medicinal history. Among participants without any regular medication history, total 160 (48.8%) were classified as Sukha Sadhya, 154 (47.0%) as Krichha Sadhya, 13 (4.0%) as Yapya, and 1 participant (0.3%) as Asadhyata.

Participants with a history of regular medication showed poorer prognostic categories. Among these individuals, 113 participants (61.7%) were in Krichha Sadhya category, 38 (20.8%) were classified as Yapya, and only 31 participants (16.9%) were categorized as Sukha Sadhya.

Overall, among the total 511 study participants, 191 (37.4%) were categorized as Sukha Sadhya, 267 (52.3%) as Krichha Sadhya, 51 (10.0%) as Yapya, and 2 participants (0.4%) as Asadhyata.

The association between medicinal history and disease prognosis was found to be highly statistically significant ($\chi^2 = 70.045$, $p < 0.001$), indicating that previous medicinal history shows a significant influence on Sadhya–Asadhyata.

**TABLE 10- MEDICINAL HISTORY**

	SUKHA SADHYA	KRICHHA SADHYA	YAPYA	ASADHYA	TOTAL
NO	160 (48.8%)	154 (47%)	13 (4.01%)	01 (0.3%)	328
YES	31 (16.9%)	113 (61.7%)	38 (20.8%)	01 (0.5%)	183 (100%)
TOTAL	191 (37.4%)	267 (52.3%)	51 (10%)	02 (0.4%)	511 (100%)
Kruskal Wallis Test – $\chi^2 = 70.045$, $p = 0.000$					

Distribution of Sadhya–Asadhyata According to Surgical History

The influence of previous surgical history on disease prognosis was assessed. Among participants without any surgical history, 191 (37.8%) was classified into the Sukha Sadhya category, 264 (52.3%) to Krichha Sadhya, 48 (9.5%) to Yappa, and 2 participants (0.4%) to Asadhyata category.

Among the six participants with previous surgical history, 3 (50%) were categorized into Krichha Sadhya, and the remaining 3 (50%) belonged to the Yappa category.

Statistical analysis showed significant association between surgical history and disease prognosis ($\chi^2 = 12.018$, $p = 0.007$), indicating that previous surgical intervention significantly influence the prognostic outcome.

TABLE 11- SURGICAL HISTORY

	SUKHA SADHYA	KRICHHA SADHYA	YAPYA	ASADHYA	TOTAL
NO	191 (37.8%)	264 (52.3%)	48 (9.5%)	02 (0.4%)	505 (100%)
YES	00	03 (50%)	03 (50%)	030	06 (100%)
TOTAL	191 (37.4%)	267 (52.3%)	51 (10%)	02 (0.4%)	511 (100%)
Kruskal Wallis Test – $\chi^2 = 12.018$, $p = 0.007$					

Distribution of Sadhya–Asadhyata According to Family History

Among participants without a family history of disease, the majority belonged to the Krichha Sadhya, followed by Sukha Sadhya and Yappa. Participants with a positive family history were relatively few in number and mostly belonged to Yappa category.

Statistical analysis showed significant association between family history and Sadhya–Asadhyata ($\chi^2 = 8.194$, $p = 0.042$). This indicates that family history is significantly associated with disease prognosis.

TABLE 12- FAMILY HISTORY

	SUKHA SADHYA	KRICHHA SADHYA	YAPYA	ASADHYA	TOTAL
NO	191	266	49	02	508
YES	00	01	02	00	03
TOTAL	191	267	51	02	511
Kruskal Wallis Test – $\chi^2 = 8.194$, $p = 0.042$					



Association Between Vyadhi Shankara and Rogamarga

The presence of Vyadhi Shankara was also evaluated in the three Rogamarga categories. Most participants in each Rogamarga group do not exhibit Vyadhi Shankara. However, its prevalence was comparatively observed as higher in Madhyama Rogamarga (13.4%), compared with Bahya Rogamarga (5.3%) and Abhyantara Rogamarga (3.3%).

Highly significant association between Vyadhi Shankara and Rogamarga ($\chi^2 = 13.052$, $p = 0.001$) was observed in statistical analysis thus indicating differed occurrence of Vyadhi Shankara among the three Rogamarga categories.

TABLE 13- VYADHISHANKARA AND ROGAMARGA			
	BAHYA	MADHYAMA	ABHYANTARA
Absent	36(94.7%)	277(86.6%)	148(96.7%)
Present	02(5.3%)	43(13.4%)	05(3.3%)
Kruskal Wallis Test – $\chi^2 = 13.052$, $p=0.001$			

Association Between Upashaya and Rogamarga

Most participants (300; 58.7%) did not report any specific relieving factor. Local application was the most common specific Upashaya (105 participants; 20.5%), followed by medication (60 participants; 11.7%), hot fomentation (30 participants; 5.9%), other measures (9 participants; 1.8%), and therapeutic procedures (7 participants; 1.4%).

Local application was mostly reported in Madhyama Rogamarga, whereas hot fomentation was more observed under Abhyantara Rogamarga. Medication as an Upashaya was more reported in Madhyama Rogamarga.

The association between Upashaya and Rogamarga was found to be statistically significant ($\chi^2 = 24.748$, $p < 0.001$), indicating that the pattern of symptom relief varied significantly among the Rogamarga categories.

TABLE 14- UPASHAYA AND ROGAMARGA				
UPASHAYA	BAHYA	MADHYAMA	ABHYANTARA	TOTAL
No specific	29 (76.3%)	157 (49.1%)	114 (74.5%)	300 (58.7%)
Yes-LA	08 (21.1%)	96 (30%)	01 (0.7 %)	105 (20.5%)
Yes- hot fomentation	00 (0.1%)	05 (1.6%)	25 (16.3%)	30 (5.9%)
Therapy	00 (0.1%)	07 (2.2%)	00(0.1%)	07 (1.4%)
Medicine	01 (2.6%)	40 (15%)	11 (7.2%)	60(11.7%)
Others	00 (0.1%)	07 (2.2%)	02 (1.3%)	09 (1.8%)
Kruskal Wallis Test – $\chi^2 = 24.748$, $p=0.000$				

Association Between Triggering Factors and Rogamarga

Most participants (286; 56.0%) reported Vihara as the predominant precipitating factor, followed by Ahara (100 participants; 19.6%), absence of any identifiable trigger (34 participants; 6.7%), and combined Ahara and Vihara was observed among the remaining participants.



Among these, Vihara was predominantly associated with Madhyama Rogamarga, Ahara was more in Abhyantara Rogamarga. Bahya Rogamarga demonstrated a balanced distribution of triggering factors. These findings shows variation in precipitating factors among different Rogamargas.

TABLE 15- TRIGERING FACTOR AND ROGAMARGA

TRIGERING FACTOR	BAHYA	MADHYAMA	ABHYANTARA	TOTAL
No	06(15.8%)	11(3.4%)	17(11.1%)	34(6.7%)
Ahara	15(39.5%)	01(0.3%)	84(54.9%)	100(19.6%)
Vihara	07(18.4%)	264(82.5%)	15(9.8%)	286(56.01%)
Both	10(26.3%)	44(13.8%)	37(24.2%)	31(17.8%)
Kruskal Wallis Test – $\chi^2 =$, p=0.000				

Rogamarga and Sadhyasadyata

Among the 511 participants, Krichrasadhya was the most observer category (52.3%), followed by Sukhasadhya (37.4%), Yapyia (10.01%), and Asadhya (0.4%). In Bahya Rogamarga, Krichrasadhya was predominant (52.8%), followed by Sukhasadhya (23.7%) and Yapyia (21.1%). In Madhyama Rogamarga predominance of Krichrasadhya conditions (65.3%) was observed, representing the highest proportion among the three Rogamargas, while 21.9% were Sukhasadhya and 12.5% were Yapyia. Abhyantara Rogamarga showed a distinctly different pattern, with Sukhasadhya being the predominant category (73.2%), followed by Krichrasadhya (24.8%) and Yapyia (2.01%). In conclusion, Bahya and Madhyama Rogamarga were mainly related to Krichrasadhya, whereas Abhyantara Rogamarga was more related to Sukhasadhya diseases.

The Kruskal-Wallis test further revealed that there was a statistically significant difference in Sadhyasadyata among the three types of Rogamargas ($\chi^2=12.961$, $p<0.001$). Thus, it indicates a significant relationship between Rogamarga and prognosis classification. The details are given in Table 16

TABLE 16- ROGAMARGA AND SADHYASADHYATA

	SUKHA SADHYA	KRICHHA SADHYA	YAPYA	ASADHYA	TOTAL
Bahya	09(23.7%)	20(52.8%)	08(21.1%)	01(2.6%)	38(100%)
Madhyama	70(21.9%)	209(65.3%)	40(12.5%)	01(0.3%)	320(100%)
Abhyantara	112(73.2%)	38(24.8%)	03(2.01%)	01(50%)	153(100%)
Total	191(37.4%)	267(52.3%)	51(10.01%)	02(0.4%)	511(100%)
Kruskal Wallis Test – $\chi^2 =12.961$, p=0.000					

Discussion

This work was done to assess Trividha Rogamarga and its value in finding Sadhya -Asadyata. The results showed that there was a clear association between Rogamarga and Sadhya-Asadyata.

Of the three Rogamargas, Madhyama Rogamarga was found to be the most dominant group with around two-thirds of the total population falling into this category. Abhyantara Rogamarga constituted about one-third of the study population, while the Bahya Rogamarga was the least common category. This implies that diseases of the Marma-Asthi-Sandhi structures (Madhyama Rogamarga) formed the largest number of cases in the present study population. In relation to the anatomical structure of the body, the Bahya Rogamarga is mainly associated with the skin and its other superficial tissues. Madhyama Rogamarga is related to the musculoskeletal system comprising of bones, joints, muscles, ligaments, and connective tissue, while Abhyantara Rogamarga involves



the internal visceral organs and cavities. It can thus be concluded from the predominance of Madhyama Rogamarga in the present study that diseases of the musculoskeletal system form a significant part of the disease burden in this population. The anatomical explanation given above is in line with modern concepts that attempt to explain traditional medical concepts in light of the human body structure.^{10,11}

Evaluation of individual Rogamarga Lakshanas indicated considerable variations in many clinical features during the follow-up (Day 15). There was considerable variation in Lakshanas like scaly skin, Asweda, Kandu, Aruna Varna, and Ghana Peedaka in Bahya Rogamarga. The Madhyama Rogamarga also recorded considerable variations in features like Sthambha, Shula, Shotha, Karmahani, Janusandhi Shula, and Amshashula. Likewise, the manifestation of Abhyantara Rogamarga like Adhmana, Kasa, Anidra, Karapada Daha, Jwara, and Tiktaamla Udgara indicated considerable variations as well. Such variations in the clinical behavior of individual Lakshanas suggest that the assessment of individual Rogamarga could provide information about Sadhya–Asadhyata and treatment response. The physiological effects of the above-discussed issues depend on the type of Rogamarga. The disorders that affect the Bahya Rogamarga mostly affect the physiological functions of superficial tissues such as protection and sensation. On the other hand, disorders that affect the Madhyama Rogamarga include pain, movement limitations, lack of flexibility in joints, bad posture, and problems with locomotion since the musculoskeletal system is affected. As for the Abhyantara Rogamarga, it affects the physiological functions of internal organs and can affect processes such as digestion, breathing, blood circulation, metabolism, and other vital functions of the organs. These physiological disruptions can affect the severity of the disease, its further development, attitude to therapeutic measures, and even the final prognosis.¹²

The presence of a strong relationship between Rogamarga and Sadhya–Asadhyata ($\chi^2 = 12.961$, $p < 0.001$) was also noted in this current study. The majority of subjects (209; 65.3%) belonging to the Madhyama Rogamarga group were found to be in the Krichha Sadhya category. Similarly, 52.8% of subjects belonging to the Bahya Rogamarga group were Krichha Sadhya. On the other hand, the majority of subjects (112; 73.2%) belonging to the Abhyantara Rogamarga group belonged to Sukha Sadhya category. These results can be explained in view of existing knowledge about anatomy and physiology of modern science, where anatomical site and extent of involvement of tissues and organs are considered to be important factors that influence the degree of function impairment and seriousness of the disease. Despite being a traditional Ayurvedic concept, interpretation of the Rogamarga in the context of modern anatomy and physiology gives another scientific approach to understanding disease localization and function disorders.¹³

The present study also identified factors influencing Sadhya–Asadhyata. Past medical history, medicinal history, surgical history, family history, and age demonstrated significant associations with Sadhya–Asadhyata classification. Hence, Rogamarga cannot be considered the sole determinant of prognosis but rather forms an important component of the multifactorial assessment of Sadhya–Asadhyata. The findings further emphasise the clinical significance of anatomical localisation and physiological dysfunction in disease prognosis and treatment planning. Identification of the affected Rogamarga may assist clinicians in recognising the extent of structural involvement, anticipating functional impairment, selecting appropriate therapeutic strategies, and estimating the likely prognosis. Such an approach strengthens clinical decision-making by integrating classical Ayurvedic principles with contemporary anatomical and physiological understanding while maintaining the originality of the Ayurvedic diagnostic framework.¹⁴ The assessment of Trividha Rogamarga may therefore provide a clinically relevant framework for understanding disease prognosis in Ayurvedic practice.

Limitations of the Study

The non-uniform Lakshanas across the diverse disease conditions had limited the assessment of Sadhya–Asadhyata. Additionally, evaluation of multiple Srotas involvement and its combinations was not feasible due to broad spectrum of diseases included in the study.



Conclusion

The present study demonstrated that Rogamarga has a significant role in determining Sadhya–Asadhyata. Madhyama Rogamarga was the most affected Rogamarga and was predominantly associated with Krichha Sadhyata, whereas Abhyantara Rogamarga showed a predominance of Sukha Sadhyata. The significant association between Rogamarga and Sadhya–Asadhyata supports its clinical relevance in comprehensive disease assessment in Ayurveda. The findings further suggest that Rogamarga may also be understood as an anatomical framework for disease localization, facilitating the identification of the body structures predominantly involved in different disease conditions. Moreover, the observed variations in Rogamarga reflect physiological disturbances associated with functional impairment, disease progression, and prognosis. Assessing the Ayurvedic principle of Rogamarga with modern anatomy and physiological knowledge can help to improve clinical assessment, prognostic evaluation, and treatment planning without damaging the Ayurvedic principles.

Conflict of Interest

The authors declare no conflict of interest.

Funding

No specific funding was received for this study.

References

1. Parasuraman S, Thing GS, Dhanaraj SA. Polyherbal formulation: Concept of ayurveda. *Pharmacogn Rev.* 2014 Jul;8(16):73-80. doi: 10.4103/0973-7847.134229. PMID: 25125878; PMCID: PMC4127824.
2. Chopra A, Doiphode VV. Ayurvedic medicine: core concept, therapeutic principles, and current relevance. *Medical Clinics.* 2002 Jan 1;86(1):75-89.
3. Sharma RK, Dash VB(editor). *Agnivesha. Charaka Samhita with Ayurveda dipika commentary, Sutrasthana. Ch.11. Ver48* .Reprint Ed. Varanasi: Chowkhamba Krishnadas Academy; 2008. p.229.
4. Liu S, Zhu JJ, Li JC. The interpretation of human body in traditional Chinese medicine and its influence on the characteristics of TCM theory. *The Anatomical Record.* 2021 Nov;304(11):2559-65.
5. Sharma M, Kumar M, Arya P, Mehta D, Mandal SK. Rogamarga-A clinical and therapeutic indicator: A Critical Review. *Journal of Ayurveda and Integrated Medical Sciences.* 2023 Apr 24;8(3):84-7.
6. Patil V, Sapra UK. Clinical diagnosis in Ayurveda: Concepts, current practice and prospects. *Journal of Ayurveda and holistic medicine (JAHM).* 2013 May 18;1(2):1-7.
7. Deshpande K, Gupta P. Comprehensive Analysis of Kaala as a Karan Dravya in Nidana Panchak: It's Impact on Ayurvedic Diagnostic Mechanisms and Pathogenesis. *Journal of Neonatal Surgery.* 2025;14(31s).
8. Acharya R. “Chikitsa Sutra”: A ready reckoner of treatment guidelines catering to rationalization of Ayurvedic ideology. *Journal of Research in Ayurvedic Sciences.* 2022 Oct 1;6(4):149-51.
9. Jansen C, Baker JD, Kodaira E, Ang L, Bacani AJ, Aldan JT, Shimoda LM, Salameh M, Small-Howard AL, Stokes AJ, Turner H. Medicine in motion: Opportunities, challenges and data analytics-based solutions for traditional medicine integration into western medical practice. *Journal of ethnopharmacology.* 2021 Mar 1;267:113477.
10. Smith HF, Laitman JT. The yin, yang, and anatomy of traditional Chinese medicine in the anatomical record. *The Anatomical Record.* 2023 Dec;306(12):2915-9.
11. Sing V, Singh S. Scoping review on Rachna Sharir reimaged: bridging classical Ayurvedic wisdom and modern scientific perspectives. *Int J Health Sci Res [Internet].* 2025 Mar 8;15(3):71-77.



12. Dorsher PT. The anatomical and physiological knowledge of the Huangdi Neijing authors: why it matters. *Medical Acupuncture*. 2024 Dec 1;36(6):312-22.
13. Zhang SQ, Li JC. An introduction to traditional Chinese medicine, including acupuncture. *The Anatomical Record*. 2021 Nov;304(11):2359-64.
14. Ashwathykutty V, Payyappallimana U, Narayanan VR. Addressing clinical practice variability in Ayurveda: An urgent need for developing clinical practice guidelines. *Journal of Ayurveda and Integrative Medicine*. 2025 Sep 1;16(5):101201.