



ISSN 2456-3110

Vol 9 · Issue 9

September 2024

Journal of
**Ayurveda and Integrated
Medical Sciences**

www.jaims.in

JAIMS

An International Journal for Researches in Ayurveda and Allied Sciences



Maharshi Charaka
Ayurveda

Indexed

Etiopathological study of *Ardita* w.s.r. to Facial Paralysis - An observational study

Roshani Sinha¹, Nikhila Ranjan Nayak², Aradhana Kande³

¹Post Graduate Scholar, Dept. of Roga Nidana Evum Vikriti Vigyana, Shri NPA Govt. Ayurveda College, Raipur, Chhattisgarh, India.

²HOD & Professor, Dept. of Roga Nidana Evum Vikriti Vigyana, Shri NPA Govt. Ayurveda College, Raipur, Chhattisgarh, India.

³Lecturer, Dept. of Roga Nidana Evum Vikriti Vigyana, Shri NPA Govt. Ayurveda College, Raipur, Chhattisgarh, India.

ABSTRACT

Ardita is one of the *Vata Vyadhis* which is caused by aggravation of *Vata*. *Ardita* has been enlisted amongst the eighty types of *Nanatmaja Vata Vyadhis*. The vitiation of *Vata* especially aggravation of *Vata* causes '*Ardita*' as mentioned in almost all *Ayurvedic* classics. *Acharya Charaka* has included *Sharirardha* in *Ardita* while *Sushruta* has considered only face or upper part of the body is affected in *Ardita*. *Ardita* can be co-related with facial paralysis on the basis of its signs and symptoms mentioned in texts. Here, temporary suspension or permanent loss of function, especially loss of sensation or voluntary motion of unilateral side of face is considered. It occurs due to any injury or inflammation to facial-VIIth cranial nerve, which leads to partial or total loss of movement of unilateral face. Actually, facial paralysis leads to a disability of interaction by loss of facial expression, which is a major part of human communication. It may reoccur or leave synkinesis. Modern science found drugs like steroid and Antivirals etc. for it, also surgical and other treatments are available for facial paralysis. Yet, its recurrence and synkinesis also reported. Facial function plays an integral part in everyday lives disability of both verbal communication and facial expressions are hampered in *Ardita*. It is a condition that causes temporary weakness or paralysis of muscles in face.

Key words: *Ardita*, *Vata Nanatamaja*, *Facial Paralysis*, *Vata*.

INTRODUCTION

Ayurveda considers unwholesome interaction of man with his environment through *Ayoga - Atiyoga-Mithya Yoga* of *Kala-Buddhi Indriyarth* as the main cause of disease. Equilibrium state of *Doshas*, *Dhatu*s, and *Agni* is dependent on *Vata*. It also receives the sense objects & induces actions related to physical, speech and mind.

Address for correspondence:

Dr. Roshani Sinha

Post Graduate Scholar, Dept. of Roga Nidana Evum Vikriti Vigyana, Shri NPA Govt. Ayurveda College, Raipur, Chhattisgarh, India.

E-mail: shraddhasahu0810@gmail.com

Submission Date: 12/08/2024 Accepted Date: 25/09/2024

Access this article online

Quick Response Code



Website: www.jaims.in

DOI: 10.21760/jaims.9.9.6

Acharya Charaka has considered *Ardita* as one among the 80 *Vataja Nanatmaja Vyadhi* in *Sutrasthana*. *Ardita* can be result of long-term suppression of natural urges like sneezing and yawning.

The features of *Ardita* mostly resembles with palsy of 7th nerve such as deviation of face, less or decreased function of affected muscles and numbness of particular area.

Vata is the control factor for the mechanism of mind and body. Moreover the fast life style, irregular food habits and lack of rest also aggravate '*Vata*' *Dosha*, thus the ratio of *Vatavyadhi* is increasing day by day.

In Ayurveda, *Ardita* is a disease with functional disturbance affecting *Uttamanga*. The disease has been elaborated by *Ayurveda Acharya Charak*, *Sushruta* and *Vagbhatta* in their respective *Samhitas*.

OBJECTIVES

1. Etiopathological study of *Ardita* described in classical texts from the point of theoretical view.

2. Study on etiological factors, symptoms and pathogenesis of Ardita based on the Research proforma.

METHODOLOGY

Pattern of Research Work - To fulfil the above objectives, the entire research work was studied by dividing into two parts -

- Conceptual study
- Observational study

Conceptual study - *Ardita* was discussed in detail after studying various Ayurvedic classical texts, modern textbooks, various magazines, journals and research papers.

Observational study - A special research proforma was prepared on the basis of classical *Nidana* and modern diagnosis of *Ardita*.

Selection of the patient - 40 patients were selected from Shri Khudadad Dungaji Ayurveda Hospital, Raipur (C.G.).

Diagnostic criteria - Blood routine investigations, Urine test (Routine and microscopic), HbA1C, RBS, MRI & CT Scan reporting is done.

Inclusion Criteria

1. Patients who were willing for study. Either sex between the age group of 18 years to 70 years.
2. Patients presenting the clinical features of *Ardita* as mentioned in Ayurveda texts.

Exclusion Criteria

1. Patients who were not willing for study. Pregnant or lactating women, Any others neuropathy (except Bells Palsy), Unstable cardiovascular disease, Severe immune deficiency.

Assessment Criteria : the assessment was done by the *Lakshanas* of *Ardita* as per in Ayurvedic texts.

Subjective Criteria : The lesion area having following symptoms will be included-

Gradation of symptoms of *Ardita* - Facial Paralysis

1. Watering from the Affected Eye

2. Widening of Palpebral Aperture
3. The Absence of Nasolabial Fold
4. Smiling Sign
5. Slurring of Speech
6. Dribbling of Saliva
7. Trapping of food between gums and teeth

Methods of data collection

General examination and research proforma which includes *Nidana Panchaka Patra*, consent form, sphygmomanometer.

Procedure of data collection: Interview

A structured interview was conducted, which included information on socio demographic variables like age, gender, education, occupation, religion, domicile, marital status, behavioral factors like diet and habits, *Nidana Panchaka* questionnaire.

Statistical Analysis

The continuous data were calculated using descriptive statistics and others were calculated in frequency and percentage.

Study design: Observational study was conducted during April 2023 – April 2024 after selecting subjects as per inclusion criteria, an interview was conducted to assess the quality of life and *Prakriti*.

DISCUSSION

Discussions on observations

- Observational study of 40 patients according to Age with *Ardita* found maximum 70% patients in the age group of 36-60years. In accordance to the general *Ayurvedic* principle, every disease gets more severe during the *Vridhawastha* of *Rogi* which is *kala* of '*Vata*' *Prakopa* and beginning of the ageing process and degenerative change. The cause of *Ardita* in patients aged above 36years might be disordered lifestyle, *Viruddhahara* such as consumption of canned products, bakery products, samosa, kachori, burger, pizza etc. and mental stress also.

- Observation according to Gender, maximum 80% male patients and 20% female patients were found. The reason for getting the highest percentage of male category might be that males are not aware of their health. Also, males are busier with their job and more active in daily work activities. Males are more addicted to these unhealthy lifestyles, consuming junk foods, smoking, Alcohol, gutakha etc.
- Observation according to Religion, maximum 95% Hindu patients, 2.5% Muslim patients, 2.5% Sikh patients and 3.3% patients were found. *Ardita* can afflict a person of any religion. According to religion, in the description of 40 patients of *Ardita*, the reason for getting the maximum number of patients of Hindu religion group is that the area of the observational study is dominated by Hindus.
- Observation according to residence, the study was carried out at a hospital located in an urban area. Therefore, as many as 70% of patients were from urban areas. The urban lifestyle, fast and stressful schedules, irregular dietary patterns, etc. may be supporting to the pathogenesis of the disease. Distribution of almost all patients (100%) among *Sadharana Desha* can be due to geographic location of the institute.
- Observation according to the Occupation, maximum 32% of patients were found to be Serviceman. The busy lifestyle produced by activity is the most likely cause of *Ardita* in service profile. Mentally strenuous activity lead to *Ardita* due to *Mansika Hetu*, excessive consumption of *Viruddhahara*, *Adhyasana*, etc. Labour/daily wages constitute 30% which may be the result of physical strenuous activity leading to *Vata Prakopa*. The incidence among these two are may be due to constrains of household, financial tension, irregular diet habits and *Vegavidharana*, *Ratrijagarana*, *Kriyatigyog*, etc.
- Observation according to Education, the maximum 38% patients with secondary education, 30% patients with higher education, 12% patients with primary education and 20% patients were found uneducated. No association of *Ardita* with education can be established.
- Observation according to Marital status, 100% patients found in married category. Since a married person has a family and social responsibility who remains busy and consumes *Mithya Ahara Vihara*. Also because of the age group was found more primarily between 30yrs-60yrs, where in India which is a common age range of marriage.
- Observation according to Socio-economic status, the distribution of patients in which the majority of them about 47% patients were from the middle class. This majority is the result of a study done in a government hospital where most of the patients belong to middle-class families.
- Observation according to Food habit, maximum 65% patients were found in mixed group (vegetarian & non-vegetarian) and 35% were found in vegetarian group.
- Observation according to Bowel habit, maximum of 70% patients were found to have irregular bowel habit. The reason may be that due to busy lifestyle and mental stress, the person is not able to pay attention to proper eating habits, due to which the condition of *Agnimandya* arises, as a result of which there is improper excretion of *Mala*, *Mutra* and *Sweda Pravritti* and accumulation of *Mala* pollutes the body.
- Observation acc. To Addiction wise distribution of study shows that maximum 55% patients were addicted to tea, 15% to coffee, 18.3% to pan masala, 8.3% each to alcohol and smoking. There may be vitiation of *Vata* due to tea as it may cause *Mangadni*. Other all addictions also effect the *Agni* making it *Vishama*. The immunomodulatory mechanism may be suppressed due to it and may support to aggravate *Vata*, Long history of such addiction like alcohol and smoking may hamper the normalcy of *Doshas* which may lead to *Ojakshaya* and neurological disorders too.
- Observation acc. to *Sharirika Prakriti* wise distribution of study shows that maximum 50%

had *Vata-Kaphaja Prakriti*. The possible reason could be that a person who consumes *Ahara* which are of same *Doshika* predominance as his *Prakriti*, his *Doshas* automatically get aggravated. As per *Acharya Charaka*, *Ardita* is *Vata* predominant *Tridoshaja Vyadhi*. *Vata Dosha* are aggravated by consumption of *Vata* dominant *Ahara-Vihara* and consuming *Kapha* dominant *Ahara-Vihara* causes *Agnimandya*, due to which *Amarasa* is produced and *Kapha Dosha* are vitiated. Both *Dosha* get aggravated. That's why probably, people with *Vata-Kapha* predominance were found to have *Ardita*.

- Observation acc. to *Mansika Prakriti* wise distribution of study shows that maximum 65% were found to be of *Tamasika Prakriti Rajasika Prakriti* and 35% were of *Rajasika Prakriti*.
- Observation according to *Sara Pariksha*, maximum 87% with *Madhyama Sara* and 13% with *Avara Sara*.
- Observation according to *Samhanan Pariksha*, maximum 91% with *Madhyama Samhanan*, 5% with *Pravara Samhanan* and 4% with *Avara Samhanan*.
- Observation according to *Pramana Pariksha*, maximum 87% with *Madhyama Pramana*, 5% with *Pravara Pramana* and 8% with *Avara Pramana*.
- Observation according to *Satmya Pariksha*, 34% patients were of *Mishrarasa Satmya*, 6% patients were of *Ekarasa Satmya* and none of the patients were of *Sarvarasa Satmya*.
- Observation according to *Satva Pariksha*, maximum 77% with *Madhyama Satva*, 23% with *Avara Satva*.
- Observation according to *Ahara Shakti Pariksha*, maximum 72% were found with *Madhyama Ahara Shakti*. Observation According to *Vyayama shakti pariksha*, 52% patients were of *Madhyam vyayama shakti* were found.

Observation on the basis of *Nidana Panchaka*

The following result were obtained after conducting an observational study of 40 *Ardita* patients on the basis

of *Aharaja Nidana / Viharaja Nidana* and *AnyaNidana*. In this particular study, Maximum of patients were accustomed to

- *Ruksha, Sheeta, Laghu Ahara Sevana* like *Chanaka, Kalaya, Yava etc.* And *Vatakaraka Aahara Vihara Sevana* like *Kathina Padarth Sevana, Atipravaat Sevana, Ati Sheeta Sevana* (90%).
- *Katu, Tikta, Kshaya Rasa Pradhana Ahara* like *Maricha, Karela, Patola etc.* (87.5%)

In present era due to sedentary life style and the food habits, consumption of these are so common nowadays.

- It has been observed that *Vega Sandharan* (82.5%) has been commonly found, this maybe due to sedentary life style, prolonged sitting jobs or working on computers, and avoidance of public washrooms, By holding *Mala-Mutra Vega*, due to which being lack of proper *Pravritti* of *Mala-Mutra*, it pollutes the body, *Apana Vayu* got aggravated which got *Vimarga Gamana* and can affect *Urdhva Sharira*.

Where as particularly in *Ardita*, By holding *Vega* of *Kshavthu, Jrimbha, Udgaar*, the remnants *Doshas* are not removed properly, and eventually *Vata* get aggravated and produce *Ardita*.

- It is found that *Adhyashan / Vishmashan / Anshana / Virruddhashan* has 80% contribution for the disease. This could be probably due to late night lifestyles which may be the possible reason that exercises after eating leads to the generation of *Ama* through *Agnimandya*, due to which *Kapha Dosha* get aggravated and causes *Ardita*.
- Where as in *Adhyasana* - The undigested *Rasa (Amarasa)* were develop from the *Adhyasana*. This *Amarasa* mixes with *Rasadi Dhatu* and flows via *Tiryakvaha Siras* and develops *Srotorodha* which leads to *Ardita*.
- *Manasika Hetu* like *Chinta, Shoka, Bhaya, Krodha* (72.5%) were also registered. High levels of stress, anxiety, and emotional instability can profoundly affect *Vata Dosha*.

- 60% of the patients who had *Ratri Jaagrana/Diwaswapna* (sleep in the day) were found. The probable reason for which could be that there is an outbreak of *Vata* and *Kapha Prakopa*, as a result *Ardita* develops.
- Some specific *Hetu* i.e., *Kashta Dayak Shayya Shyana* (65%), *Atipravata Sevana*, *Abhighata*, *Ati Prabhasana*, *Ati Ucchairbhasana*, *Rakta Kshaya* may directly involved in provocation of *Vata*.

Thus, it was observed that many of the patients were having multiple type of *Nidana*. These observations were in favour of *Ayurvedic* description of the disease and it confirmed *Nidana* of *Ardita*.

Observational study of 40 *Ardita* patients on the basis of *Purvarupa* - Among 40 patients in this study, 85% patients experienced *Toda*, 82% patients experienced *Aavila Netrata*, 80% patients experienced *Manya-Hanugraha*.

- Toda* is described as a typical *Vatika* symptom in *Ayurvedic* classics, which is also one of the *Vata Nanatmaja Vyadhi*, may be due to aggravation of *Vata*, *Toda* found in maximum patients.
- Hanugraha* or we can say Lock jaw is one of the complications of Bell's palsy which is damage to the fourth and fifth branches of the Cranial Nerve VII i.e., Facial Nerve and, consequently dysfunction of the jaw-opening muscles. Thus, it is validated through the modern science.
- Other *Purvarupa* also been observed in the patients such as *Twacha me sunnata*, *Vayu ka urdhvavega*, *Romaharsha*, *Vepathu* in very small proportions which directly or indirectly leads to *Vata Prakopa*.

The following result were obtained after conducting an observational study of 40 *Ardita* patients on the basis of *Lakshana* -

The study of Symptomatology reveals that maximum numbers of patients were presented with *Vaktrardh Vakra* (100%), *Prabhavit bhaga se nishthiva*, *anna evum jala ka girna (lalastrava)* (100%), *Netravikriti* was observed in 100%, *Griva Chibuk Dantanum Parsve*

Vedana in 95%, *Shruti Haani* (52.5%), *Kshava Graha* (52.5%). *Shirakampa* and *Vaksanga* contributes 27.5%, *Gandha Agyaanta* also found in some of the patients.

It mostly resembles to the cardinal signs and symptoms of *Ardita* as well as facial palsy, i.e., inability to close eyes, facial asymmetry, loss of forehead and nasolabial fold, drooping of corner of mouth, dribbling of saliva, stasis of food, oedema on lips, etc. The results obtained in this way confirm the fact that the classical symptoms of *Ardita* are effective at present.

Grade wise distribution

50% patients were found Grade IV facial paralysis, 30% of them were found Grade III, 15% of them were with Grade V while 5% of them were found with Grade II Facial paralysis. The degree of voluntary movement was assessed as per House Brackmann's classification system for Facial paralysis.

- Observation on the basis of affected side :** In this study, 60% of the patients were found with affection of right side and 40% of them with affection of the left side of the face. According to National Institute of Neurological Disorders and Stroke (US Govt.), Bell's palsy can affect both sides of the face. This observation may be due to small sample size.
- Observation according to Haemoglobin test, 32 patients of male group with *Ardita*, maximum 63% male patients with haemoglobin less than 13gm, 37% were found. This might be due to *Srotorodha* and *Raktadushti* in *Ardita*.
- Observation according to Haemoglobin test, 8 patients of female group with *Ardita*, maximum 75% female patients with haemoglobin less than 11.5gm% were found. This is due to vitiation of *Rakta Dhatu* and *Margavarodha* in *Ardita*. In modern aspect, Hb has a direct relation with blood supply and the delivery of oxygen to the central nervous system.
- Observation According to ESR test, in 32 patients of male group, maximum 72% male patients with raised ESR (more than 15 mm/1hr found) & in 8 patients of female group, maximum 63% female

patients with raised ESR (more than 20 mm/1hr) were found. Due to deregulation of inflammatory process and hyper activation of Auto-immune factors, ESR has been raised.

- Observation According to Blood Pressure, 45% patients are found to have Blood Pressure more than 130/90mmHg.
- The association of Hypertension may lead to embolism or infarct and atherodegenerative changes, which may be a supportive factor for the disease also.
- Observation According to Hb1Ac, 50% patients with higher than 6 value. Diabetics are more than 4 times more likely to develop Bell's palsy then general population.

CONCLUSION

From the survey study done it is concluded that the *Nidana* and *Lakshana* of *Ardita Roga* are described in ancient *Samhitas* were also found in the present context in the patients selected for the survey. In order to stay healthy in this modern era, it is necessary to follow *Matravata* and *Samyaka Ahara Vidhi Vidhana*, *Nidra*, *Niyamita Dincharya*, *Ratricharya* and *Ritucharya*. *The Pathya-Apathya* described in ancient *Samhitas* are still beneficial for health in this present Era too.

In this study, in *Aharaja Nidana* maximum patients were having the history of mainly *Vata Pradhana Dravya*. In *Viharaja Nidana*, maximum patients were having the history of *Ucchaibhashan*, *Atipravaata Sevana*, followed by *Vegadharana*, *Atiprabhasana*, *Divaswapana*, *Vishamasana*, *Atyambupana*, *Atiprajagrana* and *Vishamasana* (wrong posture).

In *Manasika Hetu* maximum patients were having the history of *Chinta* followed by *Krodha*, *Shoka*, and *Bhaya*. In *Anyanidana* maximum patients were having the history of *Ama* formation. The history of *Margavarodha*, *Dhatukshaya* and *Rogatikarshana* were also found in some patients.

In the *Samprapti*, *Vata Prakopak Ahara Vihara* gives rise to aggravation of *Vata* and at the same time, *Ruksha*, *Laghu*, *Sheeta Guna* of *Vata* get vitiated and

get localized in the regions of head, neck, nose, chin, forehead, eyes resulting in the *Rakta Dhatu Shoshana* in turn result into aggravation of *Vata*. This way, *Vata* located in *Urdhva Jatrugata* and produces the symptoms of *Ardita*. Some of observations obtained during the study that max 60% of patients had Right sided Bell's palsy. But according to modern science, left and right side of face are equally affected in Bell's palsy. Maximum patients were 36-60 years of age group, Hindu, Married, Higher educated, Service class, and middle-income group.

On the basis of history of Hypertension and diabetes, we found that maximum of them were chronic HTN and DMII patients, The relationship between facial paralysis and hypertension has been reported in a maximum number of cases, including several reports of recurrence of paralysis during acute exacerbations of hypertension. On the other hand, we found that the maximum patients have an acute onset (idiopathic) of facial paralysis.

REFERENCES

1. Charaka Samhita – Editor Shashtri Pt. Kashinath and Chaturvedi Shri Gorakhnath, Charak Samhita Part I & II Vidyotini Hindi Vyakhya, Chaukhambha Surbharati Prakashan, Varanasi, 2004.
2. Sushruta Samhita – Editor Shashtri Kaviraj Dr. Ambikadutta, Sushruta Samhita Part I & II, Ayurveda tatwa Sandeepika Vyakhya, Chaukhambha Publications, Varanasi, 2012.
3. Ashtanga Sangraha – Author Gupta Kaviraj Atrideva, Ashtangasangraha Part 1, Krishnadas Academy Publication, Varanasi, 2011.
4. Ashtanga Hridaya – Editor Tripathi Dr. Brahmanand, Ashtangahridya Part I,, Chaukhambha Sanskrit Pratisthana Publications, Delhi, 2012.
5. Madhava Nidana – Author Upadhyay Shri Yadunandan, Madhava Nidanam Part I & II , Chaukhambha Sanskrit Sansthana, Varanasi, 2009.
6. Chakradutta, Edited by Dr. Ramanath Dwivedi, Chaukhambha Sanskrit Sansthana, Varanasi.
7. Ayurvediya Roga Vijnana and Vikriti Vijnana – Part-Radga Vallabha Sati, second edition 2004, Chaukhambha Orientalia Varanasi.

8. Sharangdhar Samhita – Edited by Prof. K.R. Srikantha Murthy, Chaukhambha Orientalia, Varanasi, Edition 2016.
9. Bhavaprakasha – Editor Dr. Bulusu Sitaram with Vidyotini Hindi Commentary, Chaukhambha Orientalia, Varanasi.
10. Harita Samhita – Editor Kshemraja Shri Krishna Das, Sri Venkateshwar Mudranalaya Prakashana, Edition 1849.
11. Kashyapa Samhita – Vriddhajeevaka revised by Vatsya, Vidyotini Hindi Commentary by Shri Satyapal Bhisajacharya, Chaukhambha Sanskrit Sansthan, Varanasi.
12. Bhela Samhita – Edited by Shri Girijadayalu Shukla, Chaukhambha Bharati Academy, Varanasi, 1999.

13. Chakrapani – Charaka Samhita Chakrapani Rachita Ayurveda Dipika Commentary, Edited by Yadavji Trikamji Acharya. 2007, Chaukhambha Prakashana, Varanasi.

How to cite this article: Roshani Sinha, Nikhila Ranjan Nayak, Aradhana Kande. Etiopathological study of Ardita w.s.r. to Facial Paralysis - An observational study. J Ayurveda Integr Med Sci 2024;9:42-48. <http://dx.doi.org/10.21760/jaims.9.9.6>

Source of Support: Nil, **Conflict of Interest:** None declared.
