

NADI PARIKSHA IN AMAVATA THROUGH NADI TARAGNINI: DIAGNOSTIC VALIDATION STUDY

Yukti Tiwari¹, Prince Gupta², Sanjay Srivastava³, Rita Singh⁴

¹Post Graduate Scholar, Dept. Of Rog Nidan & Vikrti Vigyan, Pt. K.L.S. Govt. (Auto) Ayurveda College and Institute, Bhopal, Madhya Pradesh, India

²Post Graduate Scholar, Dept. Of Rog Nidan & Vikrti Vigyan, Pt. K.L.S. Govt. (Auto) Ayurveda College and Institute. Bhopal, Madhya Pradesh, India

³Professor And Hod Dept. Of Rog Nidan & Vikrti Vigyan, Pt. K.L.S. Govt. (Auto) Ayurveda College and Institute. Bhopal, Madhya Pradesh, India

⁴Reader, Dept. Of Rog Nidan & Vikrti Vigyan, Pt. K.L.S. Govt. (Auto) Ayurveda College and Institute, Bhopal, Madhya Pradesh, India

Corresponding Author: dryukti932@gmail.com

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ABSTRACT

Nadi Vigyan is an ancient science to assess the contrariety of one's physiological state. It is a non-invasive method to get knowledge of diagnosis, prognosis, and various mental states. The concept of Ayurveda of the healthy state is, "*Vikaro Dhatu Vaishamyam Samyam Prakritih Uchyate, Sukhsangyakam Arogyam Vikaro Dukhmev cha*" An unbalanced state of *Dosha and Dhatus* leads to *Vikara* or diseased state of persons and a balanced state of *Dosha and Dhatus* keeps them in *Arogya Avastha* or healthy state. The symptoms of RA most closely resemble that of *Amavata* as mentioned in Ayurveda texts. The disease is a product of vitiation of *Tridosha* though *Ama and Vata* are the initiating factors in the pathogenesis. Rheumatoid Arthritis is the most common persistent inflammatory arthritis occurring throughout the world in all ethnic groups. The female and male ratio is about 3:1. RA affects between 0.5% and 1% of adults in the developing world with between 5 and 50 per 100000 people newly developing the condition each year. There is a wide scope for *Nadi Pariksha* in present days because every patient cannot be

subjected to all diagnostic techniques as they are very much expensive. Therefore, re-establishing *Nadi Pariksha* as a diagnostic tool with evidence-based parameters is the need of the hour.

Keeping the view above the present study NADI PARIKSHA IN AMA VATA THROUGH NADI TARANGINI was planned.

Keywords: *Nadi, Dhatuvaishamyam, Tridosha, Amavata, Nadi tarangini*

INTRODUCTION

NADI PARIKSHA is a well-known term in Ayurveda and classical texts have emphasized its significance in the assessment of *tridoshas* which are the basis of disease diagnosis and prognosis.¹ According to *YOGA RATNAKARA* all the diseases can be diagnosed from *Nadi* and it was compared with strings of veena playing all the ragas which signify the importance of *Nadi pariksha*.² In *Ayurveda Nadi* indicate the status of the whole body, as in Modern medicine pulse reflects nature, scope, and purpose of life. In Ayurveda, there are eight clinical limbs -examination of pulse, urine, faces, eyes, tongue, speech, skin, and form.³ The most important of these limbs is *Nadi*. The earliest evidence about *Nadi Pariksha* is found in texts of *Bhela Samhita, Harit Samhita, Angevin Nadi shastra, Bharadwaja Samhita later Kanada, Markandeya, Ravana, Bhudharbhatta*, and other described. In modern medicine physician gets important information like rate, rhythm, pressure, and force. Nowadays *Nadi Tarangini* uses to make a diagnosis. *AMAVATA* is a clinical condition in which, vitiated *Vata and Ama* simultaneously move towards the *trika and sandhis* leading to *stabdhata* of the body and characterized by *sandhi shoola, sandhi shotha, stabdhata, and Sparsh asehyata*.⁴ Rheumatoid Arthritis (RA) is a chronic, immune-inflammatory systemic disease that affects synovial joints with extra-articular manifestations.⁵ It makes life miserable and crippling due to unknown causes, claiming the maximum loss of human working capacity. The symptoms of RA most closely resemble that of *Amavata* as mentioned in Ayurveda texts. The disease is a product of vitiation of *Tridosha* though *Ama* and *Vata* are the initiating factors in the pathogenesis.⁶ Rheumatoid Arthritis is the most common persistent

inflammatory arthritis occurring throughout the world in all ethnic groups. The female and male ratio is about 3:1. RA affects between 0.5% and 1% of adults in the developing world with between 5 and 50 per 100000 people newly developing the condition each year.⁷

CONCEPTUAL STUDY:

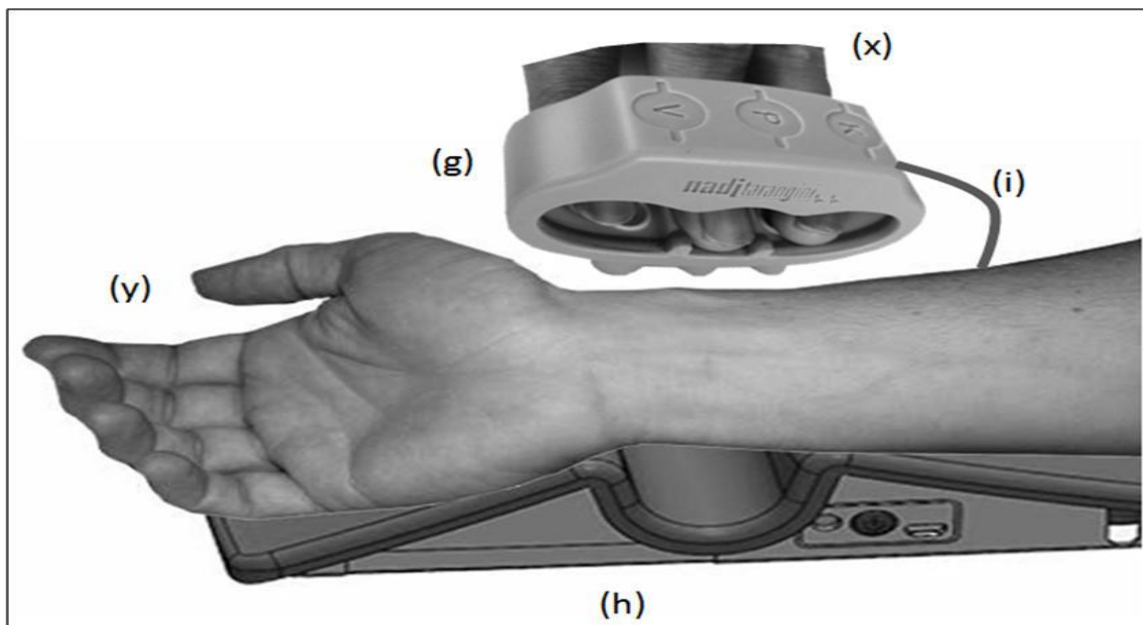
NADI TARANGINI: The *Nadi Trangini* (NT) is a pressure sensor-based instrument; the sensor record the pressure of pulse and the transmitter cum amplifier covert mechanical waves to electronic waveform and an artificial intelligence-based digital analyzer represents it in the form of a graph with a reading of pressure level at the individual dosha sthana; beneath the index, middle, ring fingers.

It has 3 parts:

1. Doctor's unit
2. Patient's unit
3. Computer system with *Nadi Tarangini* app

METHOD OF NADI PARIKSHA BY NADI TARANGINI:

- ✓ Fill the demographic details of the subject into the *Nadi Trangini* App first of all.
- ✓ Ask the subject to place his hand on the base of *nadi Tarangini*.
- ✓ Mark the place where we perform manual *nadi pariksha*; one *angula* below to *angushtha moola*.
- ✓ Switch on the NT instrument and connect it with a computer.
- ✓ Place the doctor's unit in the same place where the marking is done.
- ✓ Then apply medium pressure and record the pulse reading for 1 minute.
- ✓ After one minute stop pulse recording. After a few seconds computer display the detailed *nadi pariksha* report.



NADI PARIKSHA IN AYURVEDA:

Traditionally *Nadi Pariksha* was done by sensing the pulse at three locations on radial artery and assessing *doshas* from palpation of the pulse. The qualities or properties of the *Nadi* are vital in assessing *doshas* as part of *Nadi Pariksha*. The classical texts have emphasized the significance of *gati*, a unique quality of the pulse, as part of *Nadi Pariksha* and as per texts, *gati* plays a key role in disease diagnosis.⁸ There is a precise description of *dosha* predominance in the texts which can be sensed from specific locations on radial artery and accordingly *vata dosha* is felt at the root of the thumb which can be sensed with index finger, next to it is *pitta dosha* which can be sensed with middle finger followed by *kapha dosha* sensed by ring finger. As per *ayurveda* balanced *Tridoshas* represent sound health and vitiated *doshas* lead to diseases. According to *Yoga Ratnakara* all the diseases can be diagnosed from *Nadi*, and it was compared with strings of *veena* playing all the ragas which signifies the importance of the *nadi pariksha*.⁹

MODERN VIEW:

The pulse in modern medicine is described under the:

- Rate
- Rhythm and Regularity

- The force of pulse, i.e., a rough measure of systolic blood pressure assessed by the pressure required to compress the lumen
- The force of the pulse, i.e., a rough measure of diastolic blood pressure and is judged by the softness or rigidity of the vessel wall between pulse beats.
- The volume of pulse i.e., degree of expansion or amplitude and corresponds to pulse pressure.
- Condition of the vessel wall
- The character of pulse, i.e., various terms are used in the Ayurvedic system of medicine.
- From the counter of the pulse wave, i.e. Although better appreciated with a sphygmograph the form or counter of the wave can be assessed with a trained finger.¹⁰

AMAVATA:

AMAVATA: The term *Amavata* is a combination of two words; *AMA* & *VATA*, *AMA*: IN *Amarakosha*, the word *ama* means the substance subjected to digestion. *VATA*: “*VA GATI GANDHANAYO*”, here *VA dhatu* signifies *gati* and *Gandhana karma of vata*.¹¹ *Amavata* was first described as an independent disease in the 7th century A.D by Acharya Madhavkar. The constant use of incompatible food particle sedentary habits and strenuous exercise immediately after consuming fatty

food leads to indigestion .this result in the formation of *Ama* which gets circulated throughout the body and accumulates in Shleshma sthana especially at the musculoskeletal joint leading to the disease Amavata having symptoms of Bodyache, loss of appetite, heaviness, fever, excessive thirst, etc. characteristics of Amavata are different according to its chronicity (Nav & Jeerna).this disease affecting *Abhayantra* and *madhyam rog marg* involving the *marma asthi sandhi*.

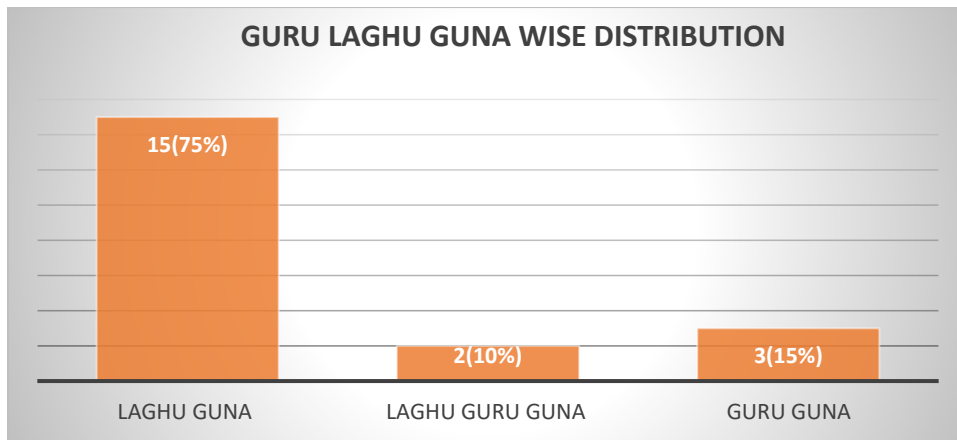
AIM & OBJECTIVES:

To find the type of Nadi Gati in Amavata and to validate diagnostic criteria based on Nadi Pariksha.

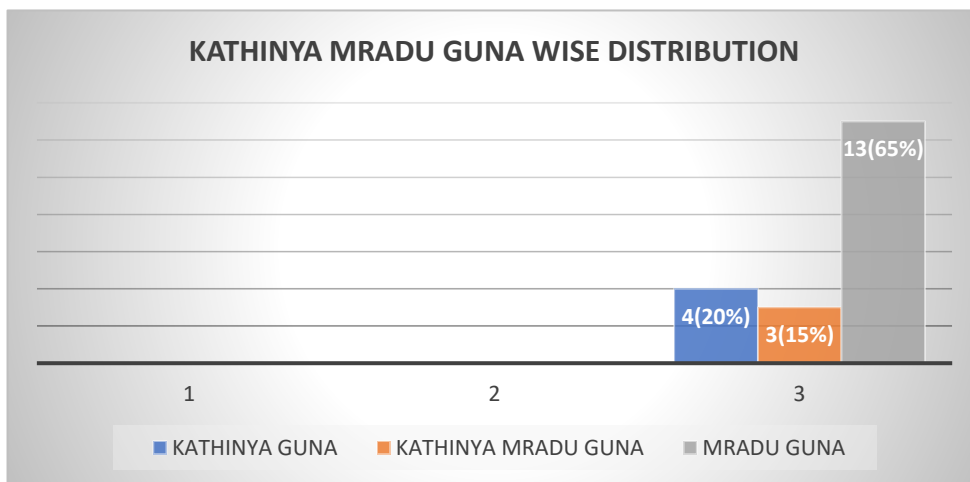
MATERIALS AND METHODS:

- Known cases of Amavata were selected by purposive sampling method (Total of 15 patients) from O.P.D. & I.P.D. of Pt. Khushilal Sharma Government Ayurveda College and Institute.
- Nadi Pariksha will be done with Nadi Tarangini (Nadi Pariksha Yantra) to make the diagnosis objective and more accurate.
- Nadi Pariksha will be carried out in the morning between 7:00 AM to 10:00 AM.
- The patients will be examined with an empty stomach.

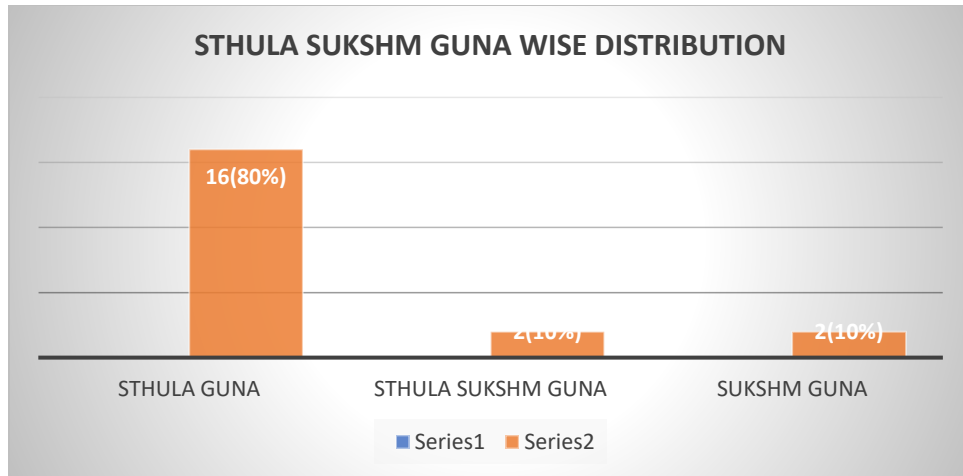
DATA ANALYSIS



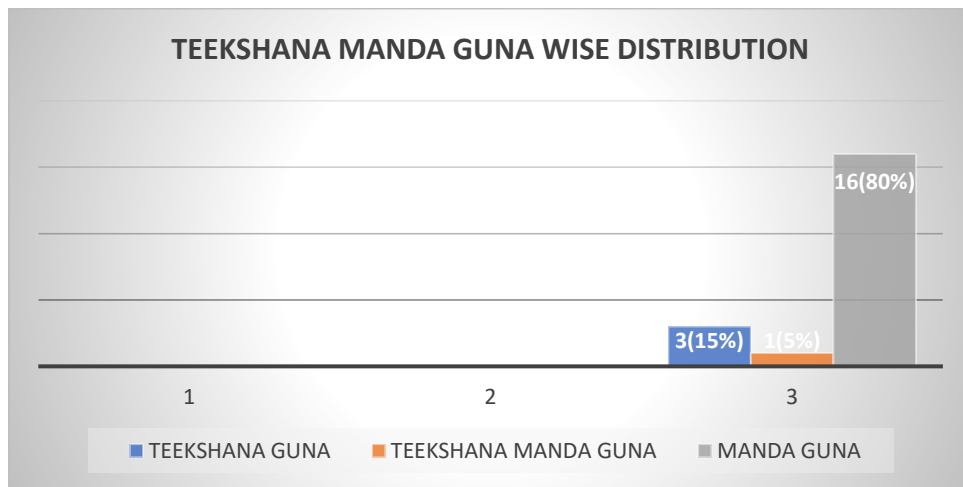
In the present study maximum number of patients, 15(75%) were of Laghu guna, 2(10.3%) patients were of Laghu guru guna equal whereas 3(15%) patients were of Guru guna.



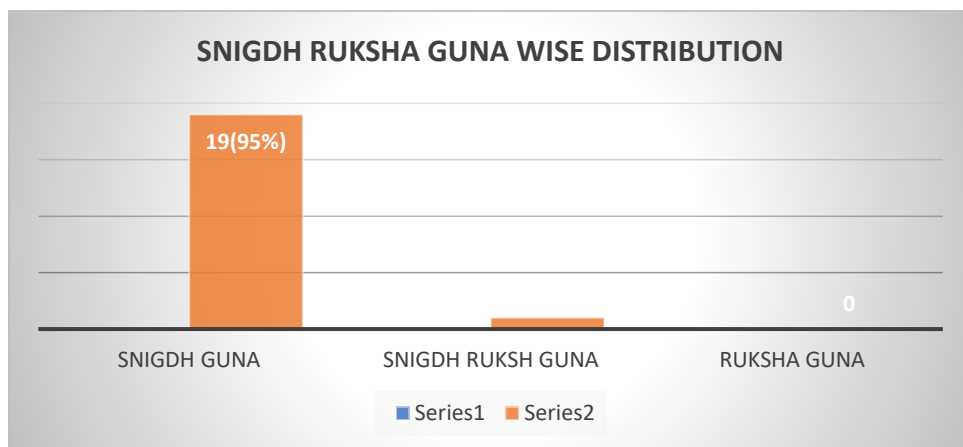
In the present study maximum number of patients, 13(65%) were of Mridu guna, 3(15%) patients were of Kathinya Mridu guna equal whereas 4(20%) patients were of Kathinya guna.



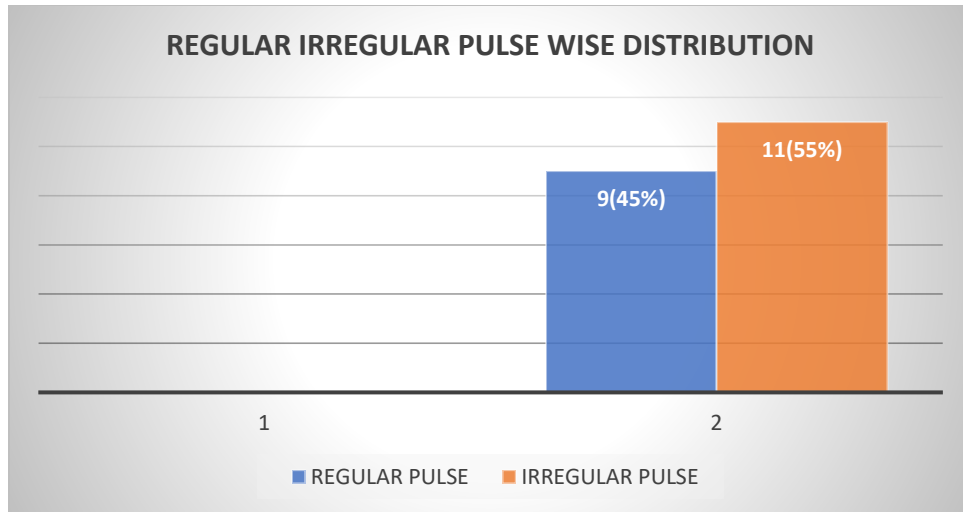
In the present study maximum number of patients, 16(80%) were of Sthula guna, 2(10%) patients were of Sthula Sukshma guna equal whereas 2(20%) patients were of Sukshma guna



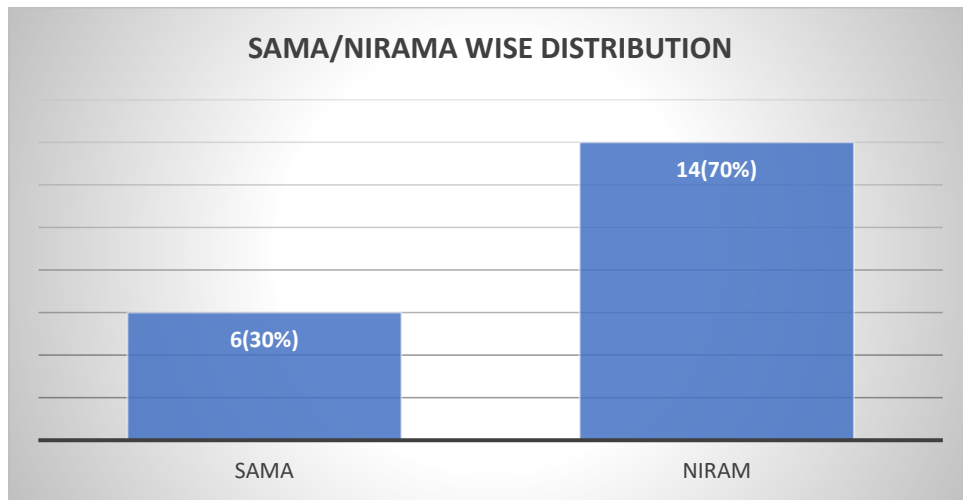
In the present study maximum number of patients, 16(80%) were of Manda guna, 1(5%) patient was of Teekshana Manda guna equal whereas 3(15%) patients were of Teekshana guna.



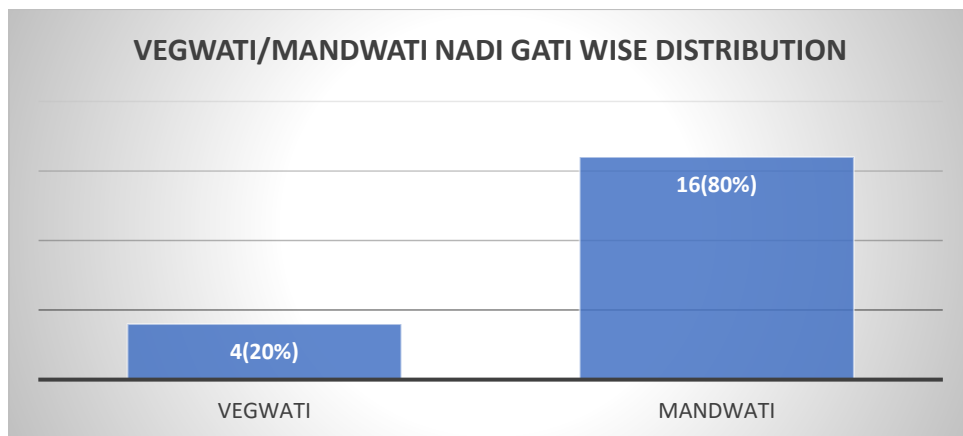
In the present study maximum number of patients, 19(95%) were of Snigdha guna, 1(5%) patients were of Snigdha Ruksh Guna equal whereas 0(0.0%) patients were of Ruksha guna.



In the present study maximum number of patients, 11(55%) were of Irregular Pulse, and 9(45%) patients were of Regular Pulse.



In the present study maximum number of patients, 14(70%) were Niram, and 6(30%) patients were Saam.



In the present study maximum number of patients, 16(80%) were of Mandwati Gati Nadi, and 4(20%) patients were of Vegwati Gati Nadi.

DISCUSSION

Discussion is like, an attempt to get the butter from milk by churning it. This is the right step to making a conclusive judgment. Scholars cannot make statements without having a fact check of previous research and outcomes. Discussion either may substantiate the hypothesis or can help in rectification or may revolutionize the concept. There is a need for profound reasoning to accept the theories made out of observations although it has been made after Classical studies and experiments. Thus, the discussion becomes a mandatory and very crucial part of any scientific work.

As per *Ashtanga Hridayam guru* (heavy), *manda* (slow), *Hima* (cold), *snigdha* (unctuous), *Slakshna* (smooth), *Sandra* (solid), *mridu* (soft), *Sthira* (stable), *sukshma* (subtle), *Visada* (non-slimy) and their opposites *laghu* (light), *tikshna* (quick, fast), *usna* (hot), *ruksha* (dry), *khara* (roughness) *drava* (liquid), *kathina* (hard), *cala* (moving), *sthula* (big), *picchila* (slimy) are twenty qualities or *gunas* which play a key role in disease diagnosis and specifically in assessing *doshas*.¹²The traditional parameters are closely associated with the modern parameters such as pulse wave velocity, pulse rate variability, and hardness of the artery.

CONCLUSION

In Ayurveda Diagnosis is the primary step before starting treatment of any disease. Based on nadi pariksha we can conclude "NADI PARIKSHA IN AMAVATA THROUGH NADI TARAGNINI"

1. In this present study maximum number of patients 15(75%) were of Laghu guna.
2. In the present study maximum number of patients 13(65%) were of Mridu guna.
3. In the present study maximum number of patients 16(80%) were of Sthula guna.
4. In the present study maximum number of patients 16(80%) were of Manda guna.
5. In the present study maximum number of patients 19(95%) were of Snigdha guna.
6. In the present study maximum number of patients 11(55%) were of Irregular Pulse.

7. In the present study maximum number of patients 14(70%) were of Niram.
8. In the present study maximum number of patients 16(80%) were of Mandwati nadi.

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