

Nadi Pariksha (Pulse Diagnosis) - A Traditional Diagnostic Approaches as per Ayurveda

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Abstract:

In *Ayurveda* we find the mention of a very important diagnostic tool referred to as the *Ashtvidhpariksha*. *Nadi pariksha* forms an inevitable part of this *Ashtvidha Pariksha*. Through *Nadi* we can determine the *Prakruti-Vikruti*, the status of *Doshas* in each organ and effects on *Dhatus*, *Manas* and *Sukshma Sharira*. *Vata-Pitta-Kapha* which forms the base of diagnosis and treatment in *Ayurveda*; their effect and their current status in the body can be determined only through *Nadi Pariksha*. Also *Bhutpreta Badha* mentioned in *Ayurveda* can also be known through *Nadi Pariksha*. The information about *Nadi* is available in the form of *Shlokas* in our ancient books. The information in the *Shlokas* is not very clearly written and is mentioned in a very decorative language. Thus, it can be understood only with the proper guidance of a guru. There is evidently no reference about *Nadi vijnana* in our ancient books like *Brihatrayi*. *Sharangdhara Samhita* of 13th century was the first such book which establishes the authentication of *Nadi Pariksha*. Then in 16th century '*Bhavprakasha*' also provides proof of some development in the field of *Nadi Vijnana*. In *Yogratnakara* of 17th century, complete details and information about *Nadi Pariksha* can be found. The purpose of the present study is, to impoverish the cognition, a little attempt is made to put.

Keywords: *Nadi Pariksha, Pulse, Nadi Gati, Tri Dosh, Astavidha Pariksha, Nerve Plexus.*

Introduction:

In ayurveda the pulse examination is very vital component of traditional diagnostic methodology which involves observation of circulatory movement of vessels of wrist (Pulse examination). Diagnosis through pulse requires highly expert technical hands to establish accurate correlation between pulsation and disease type. This approaches based on the fact that the pulsations dictate the physiological status of the entire human body. It involves examination of pulse by applying pressure until to get maximal pulsation and then observation of various pulse phases with varying pressure. Pulses need to be observed deeply, to predict physiological changes. From the past decades *Nadi* has been recognized as the most fundamental sign of life, and the pathology as well as physiology of the *Sharira* is being recognized by the physician through proper *Nadi-Pariksha*.^[1] Even in today's hectic lifestyle, under emergency clinical conditions, modern physicians seek help by the *Pariksha of Nadi*, as it is thought to present the latest picture of the working efficacy of heart, and the rate, rhythm, volume and character of the pulse indicate clearly the condition of the patient in various aspects.^[2]

Review Literature:

Method of examination of pulse^[3]: Generally left hand pulse for females and right hand pulse for males is palpated. The hand should be free, slightly fixed at the forearm and should be comfortably in his position. A physician should gently palpate pulse of patient with the three fingers of the physician of the right hand, namely index finger, middle finger and right finger in central area located at the base of the thumb. The index finger is comfortably placed nearest the thumb and other two fingers are placed next to it. In this way pulse should be examined for three hours in early morning.^[4]

With the full of concentration, a physician should analyze observation in context to *Dosagati* and examine patient's pulse by holding palpating again and again after short intervals.

Characters of pulse:

Feature of natural pulse^[5]: Pulse is palpated clearly, faultlessly, in its own position or location. It is steady means it is neither too fast nor too slow; it pulsates at its own place in physiological status of the body.

Which pulse should be examined^[6]: A physician should touch right wrist of the patient (left hand for female) with right hand of examiner and observe the pulse.

Uses of left hand for female: The famous Ayurvedic text (yogaratrikara) for Nadi Vijnana explained regarding this concept, Nadi Chakra (nerve plexus) differs in male and female. The Chakra lies at the level of Nabhi (upwards in female and downwards in male) known as Kurma Chakra influence the pulse of an individual.

Other location of Pulsative vessels for Nadi Pariksha:

The locations of pulsating vessels easily accessible for palpation are;

- Root of thumb of hand (*Angusta moole karayo*)
- At ankle joint (*Paadayo gulpha deso*)
- At temporal region (*Kapaala parsho*)
- At neck (*Kantha*)
- At nose (*Nasa*)
- At eye (*Akshi*)
- At tongue (*Jihwa*)
- At penis (*Medhra*), and all these locations at both sides. These count sixteen sites of palpation of pulse (*Shodasa Pranabhodhaka*).

Types of Nadi pariksha according to the condition of the patient^[7]:

- To know the Ayu (life span), Laghutva (light ness), Swasthya (health) and Jwara vimochan (be coming free from fever), Piragua Nadi should be examined.
- To know the Jeeva niryam (death), Hastagata Nadi pariksha should be done.
- To know Ajeerna (Indigestion) and Ama dosha, Jwara agamana (arrival of fever), Kshudham (appetite), Dushta vata, pitta kaphas, Hasta Nadi should be examined.
- To know Aganthuka jwara, Thrishna (thirst), Ayasa (dyspnoea), Maithusanklamana (fatigue due to copulation), Bhaya (fear), Soka (sorrow), Kopa (anger), Kanta Nadi should be examined.
- To know about Mrityu (death) Kama (desire), Netraroga (eye disorder) Sirovyatha (head ache),

Sravana (ear) Mukharogas (mouth), Nasa Nadi should be examined.

Diurnal changes in pulse: *Dosha* have effect on pulse at different times of day. Morning pulse is *Kapha* dominant, afternoon it is *Pitta* dominant, evening it is *Vata* dominant and at midnight it is *Pitta* predominant.

Significance of pulse in relation to *Dosha*:

Finger palpation: First finger or fore finger feels *Vatanadi*, middle finger feels *Pittanadi*, and third or last finger i.e. ring finger feels *Kaphanadi*.

Nadigati (propagation of pulse) in relation to *Dosa*:

- **Vata:** Serpentine or leech like propagation, in zigzag fashion, is palpated in case of *Vatadosa* predominance.^[8]
- **Pitta:** Crow or frog like propagation, in hopping fashion is palpated in case of *Pitta dosha* predominance.^[9]
- **Kapha:** Swan, cock, peacock, pigeon like propagation, in regular steady strides is palpated in *Kapha dosha* predominance^[10]
- **Dwandvaja^[11] and Sannipataja pulse^[12]:**
- Pulse, which propagates like a snake for some time and shift to one like frog is *Vata - Pitta* predominant pulse (*Muhur Sarpa gati and Muhur Beka gati*).
- Pulse, which propagates like a snake for some time and shift to one like swan is *Vata - Kapha* predominant pulse (*Sarpahamsa gati*).
- Pulse, which propagates like a monkey for some time and shift to one like swan is *Pitta - Kapha* predominant pulse (*Harihamsa gati*).
- Pulse, which propagates very fast, stops in between and again propagates fast, is *Sannipata* pulse.

Colour and Touch of pulse:

Table 1: Relation between Colour, Touch of Pulse and *Dosha*.

Type of pulse	Colour	Touch
Vata	Blue(Nila)	sometimes warm and sometimes cold
Pitta	Yellowish(Pita)	Warm
Kapha	Shweta(White)	Cold

Code of conduct for pulse examination:

For Physician:

- Should be calm
- Calculative
- Concentrating on pulse

Nadi Jnanahina Vaidhya Dosha^[13]: The physician who wants to treat the patient without the knowledge of Nadi gati will fail in the treatment as a blind that tries to climb a mountain.

Contraindications for examination of pulse:

Table 2: Contraindications of pulse for patient and Physician

Contradictions	Conditions
For patient	<ul style="list-style-type: none"> • Immediate after bath • Immediate after meal • After massage • In hungry or thirsty state • During sleep • Immediately after sleep
For physician	<ul style="list-style-type: none"> • Who has consumed liquor • Who feels natural reflexes of defecation or urination • Who is greedy • Who desires sex

What to diagnose:

Table 3: Diseases and conditions for different pulsations sites

Pulsation site	Diagnosed diseases and conditions
Pulse at nose	<ul style="list-style-type: none"> • <i>Maranam</i> and <i>jivana</i> (death and life) • <i>Kama</i> (sex) • <i>Kantaroga</i> (diseases of the neck) • <i>Sirorujam</i> (diseases of the head or headache) • <i>Sravanarujam</i> (diseases of ear) • <i>Anila roga</i> (diseases due to <i>Vata dosa</i> vitiation)
Pulse at neck	<ul style="list-style-type: none"> • <i>Agantuka jwara</i> (fever of <i>Agantuka</i> type) • <i>Trishna</i> (excessive thirst) • <i>Aayasam</i> (physical strain) • <i>Maithunam</i> (sex enjoyment) • <i>Klama</i> (tiredness) • <i>Bhaya</i> and <i>Shoka</i> (mental reactions like fear and mourning) • <i>Kopam</i> (anger)
Pulse at ear	<ul style="list-style-type: none"> • <i>Chaksu roga</i> (ophthalmic diseases) • <i>Karna roga</i> (otology) • <i>Prameha</i> (diabetes) • <i>Padaroga</i> (diseases of foot)
Pulse at foot	<ul style="list-style-type: none"> • <i>Ajirna</i> (Indigestion) • <i>Raktapitta</i> (bleeding disorders) <p>*When foot pulse come back to its original position, it indicates;</p> <ul style="list-style-type: none"> • <i>Jivitam</i> (life) • <i>Laghavam</i> (feeling of lightness) • <i>Swasthyam</i> (healthy) • <i>Jwara vimochanam</i> (convalescence from fever)

Factors are affecting the Nadi:

Effect of temperature on pulse: Pulse rate rise and falls with rise and fall of temperature.

Season and pulse:

Table 4: relation between Season and pulse:

Season	Character of pulse
<i>Sisira</i> (January/February)	Leech /Elephant
<i>Vasanta</i> (March/April)	Swan/Peacock
<i>Grishma</i> (May/June)	Swan/ Serpent
<i>Varsha</i> (July/August)	Rabbit/ Fish
<i>Sharad</i> (September/October)	Swan
<i>Hemanta</i> (November/December)	Frog/Leech/Crow

Time and pulse:**Table 5: Relation between Time and pulse**

Time	Character of Pulse
Morning	Snigdha(unctuous)
Afternoon	Usna(hot)
Evening	Tikshna(Fast or rapid)
Night	Manda (Slow)

Age and pulse: The pulse decreases in rate with increasing age.

Table 6: Relation between age and pulse

Age	Rate in pala	Rate in minute
Fetus just delivered	56 <i>pala</i>	140/ min.
Neonatal child	44 <i>pala</i>	120/min
Young	36 <i>pala</i>	90/min
Adult	29 <i>pala</i>	73/min
Old	28 <i>pala</i>	70/min
Oldest	31 <i>pala</i>	78/min

Physiology of Pulsation:

Pulse is defined as a pressure wave, and travel along with walls of the artery during ejection of blood from left ventricle to aorta during systole. When the pressure wave travel along the artery causes expansion of artery and palpate as pulse. Pulse velocity (8-9m/sec) is faster than the blood velocity (50cm/sec).

Pulse points:

- On the surface of the body where arterial pulsations can be easily palpated.
- The most commonly used pulse point is over the radial artery at the wrist.

Importance of pulse examination:

Pulse represents the heartbeat. So, examination pulse is an important clinical procedure.

Rate:

- Pulse rate is accurate measure of heart rate. Pulse rate increases during the conditions like exercise, emotional conditions, fever, anaemia, pregnancy and hyperthyroidism.

- Pulse rate decreases during the conditions of sleep, hypothermia, and hypothyroidism.

Rhythm:

- Rhythm is regularity of pulse; regular under normal conditions and irregular in the conditions like atrial fibrillation, extra systole and other types of arrhythmia.

Character:

- Character of the pulse is best assessed by palpating carotid artery.
- Character denotes the tension on the vessel wall produced by the waves of the pulse.
- Normal condition- not possible to detect.
- Abnormal condition- more prominent. Example- water hammers pulse, pulses paradoxes.

Volume:

- Volume is the determination of movement of blood vessel wall, produced by the transmission of pulse wave.

Pulse and various diseases:**Table 7: Relation between Pulse and various diseases**

DISEASE	PULSE FORM
• Alcoholism	• Full pulse
• Angina pectoris	• High tension pulse
• Anxiety	• Feeble and low tension pulse
• Appendicitis	• Proportional to temperature
• HT	• Fast pulse
• Indigestion	• Intermittent pulse
• Malaria	• Slow Pulse
• Myxedema	• Slow

• Peritonitis	• Small, hard, rapid
• Pnumonia	• Rapid
• Pregnancy	• Slow regular and low tension
• Renal coma	• Hard
• Typhoid fever	• Slow
• Sepsis	• Rapid

Conclusion:

Nadi Vijnana is a science perfected over time and has been the most accurate diagnostic procedure even today. It is our good fortune that we have, even to this day, a handful of people who are following this. As we know treatment is Samprapti Vighatana means breakdown of Dosha-Dushya Samurchhana, so when we have an idea about the Doha which is vitiated by the help of Nadi it becomes easier to deal with that pathological condition. At the same type Nadi can play an important role to find out an individual's temperament so that help to achieve the prime objective (Swasthsya Swasthya Rakshanam). Mind plays a very important role in pulse investigation as we have to control its notoriousness. This nature of mind causes great difficulty in assessing the three *Dosha* i.e. *Vata*, *Pitta* and *Kapha* with one finger. It has been observed that it becomes much easier to evaluate a pulse of a person with three fingers than by one. One thing can be said that *Vata* vitiation is the most dangerous of all the situations. *Vata* is the king that leads the other two *Doshas* i.e. *Pitta* and *Kapha*, either for good or bad purpose.

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