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# Concept of Angul Praman in relation to Prakriti and Ayu: A Review

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# ABSTRACT

Ayurveda emphasize an inventive view of health during treating the disease. It is the science which has detailed conception of anthropometry at that time. As Ayurveda deals not only with diseases but also provides the background for healthy long life. The concept of *angul pramana* (measurement) is a significant tool for the knowledge of both longevity as well as disease. It varies from individual to individual according to *prakriti* (body constitution). As the body constituents are different from one another, so the measurement is performed by own finger of an individual. Ayurvedic text has also established a concept of longevity in accordance to *angul pramana* and different *prakriti*. *Prakriti* and *pramana* both are included in *dashvidha pariksha*. Also *kaphaj prakriti purusha* has *pralamb bahu* (long arms) and lean and thin of *vata prakriti*. *kapha prakriti* individuals are *dirghayu* (long life), *pitta prakriti* are *madhyam ayu* (moderate life span) and vata prakriti have *alpayu* (short life span). So *pramana* provides scientific value of anatomical and physiological judgment of health of an individual.

# **KEYWORDS**

Angul Pramana, Prakriti, Ayu, Anthropometry



# **INTRODUCTION**

Pramana means measure, scale and standard<sup>1</sup>. Angul pramana is one of the important concepts of ayurveda which is of anatomical significance for determination of ayu (longevity), ojas (immunity) and bala (strength) of an individual<sup>2</sup>. In relation to measure the body entities there are two types of pramana – anjali pramana and angul pramana<sup>3</sup>. Anjali pramana is considered for the measurement of dosha and *dhatu* while angul pramana is useful for rule out growth and development of different body parts. Angul pramana play a major role in determination of life span of a person. It enlightens that individual having appropriate measurement will attain the long life<sup>4</sup>. In ayurved different acharya describe the length and breadth of different anga*pratyanga* (body parts) measuring by *angul*<sup>5</sup>. As length and breadth of fingers of every person differs from each other, that's why for measuring body parts own angul of individual is taken, considered as swaangul<sup>6</sup>. In modern science pramana sharir is described under the heading of anthropometry which is useful for assessing height, age, race and nationality of an individual. It deals with the systemic measurement of body size and shape<sup>7</sup>. In

physical and psychological ayurveda constitutions are measured in the form of prakriti. Prakriti and pramana both are included in *dashvidha pariksha*<sup>8</sup> (methods of examining the patient). In the context of prakriti, kaphaj prakriti purusha has pralamb bahu (long arms) and lean and thin of vata prakriti. It seems to have a correlation between *prakriti* and *praman*<sup>9</sup>. Same as, in case of *prakriti*, *acharya* charka mentioned that kapha prakriti has individuals are dirghayu (long life), pitta prakriti are madhyam ayu (moderate life span) and *vata prakriti* have *alpavu* (short life span). So the present paper is aimed to make easy the concept of angul pramana and relation of angul pramana with body constitution (*prakriti*) in estimating life span (*ayu*) and quality of life of an individual.

# **Description of** *pramana* in *ayurvedic* literature:

Acharya Susruta has mentioned anguli pramana for assessing life span and economic status of an individual<sup>10</sup>. Also he has mentioned that age for growth and vitality of man is 25 and woman 16 years<sup>11</sup>. So the measurement is accurate after attaining this age. In the context of dasha vidha pariksha (method of examining the patient), pramana is illustrated at point of



examination to assess growth of individual and disease<sup>12</sup>. Entire body in height and breadth of eighty four *angul* is considered as *ayam* and *vistar* of body<sup>13</sup>. If *Ayam* and *vistar* of body is equal measuring by *swaangul*, is called *sama sharir*. *Ayama*, *Parinaha*, *Vistara* and *Utsedha* are the four dimensions of *pramana Sharir*<sup>14</sup>. Height of body is considered as *ayam*. *Vistar* means distance from the tip of middle finger of right hand to the tip of middle finger of left hand with expanded arms, is called *vistar*<sup>15</sup>.

Table 1 Measurements described by Sushruta and Charak arranged in ascending order (less than 4 Angula)

Name of measure-Susruta	Measure in	Name of measure-	Measure in angula
	angula	Charak	
Naasaputa Maryada	2/3		
Paadakanishthika	0.8		
Paadaanamika	1.2		
Paadamadhyama	1.6		
Paadangushtha	2		
Paadapradesini	2		
Vrushana vistara	2		
Chibuka	2		
Dashana	2		
Naasaputabhaaga	2		
Karnamula	2		
Bhurantrara	2		
Nayanantara	2		
		Stana paryanta	2
		Hrudayam	2
Kanishthika	3 1/2	·	
Angushta	3 1/2		

**Table 2** Measurements described by Susruta and Charak arranged in ascending order (Four and Four and Half *Angula*)

Name of measure-Susruta	Measure in	Name of measure-	Measure in angula
<b>D</b>	angula	Charak	
Prapada aayama	4		
Paadatala aayama	4		
Paarshni vistara	4		
		Paada utsedha	4
		Jaanu aayama	4
		Chibuka	4
		Ostha	4
		Akshimadhya	4
Mehana	4		
Vadanantara	4		
Nasa	4	Nasa	4
Karna	4	Karna	4
Lalata	4	Lalata	4
Greeva	4		
Drishtyantaraayama	4		
Hastaatala vistaara	4		

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				1
Mukha	4			/
		Sirodhara utsedha	4	
Pradeshini	4 1/2			
Anaamika	4 1/2			

#### Table 3 Measurements described by Susruta and Charak arranged in ascending order (5-11 Angula)

Name of measure-Susruta	Measure in <i>angula</i>	Name of measure- Charak	Measure in <i>angula</i>
Prapada vistara	5		
Paadatala vistaara	5		
Paarshni aayama	5		
		Aasya aayama	5
		Mehana parinaaha	5
Angushtha mula-Pradesini	5		
Sravana-Apanga antara	5		
Madhyamanguli	5		
		Paada vistaara	6
		Vrushana aayama	6
		Mehana aayama	6
		Amsa	6
Hastatala aayama	6		
·		Vrishana parinaaha	8
		Skandha	8
		Kaksha	8
		Bastisiras aayama	10
		Udara vistaara	10
		Parswa vistaara	10
Mastaka-Avatukeshanta	10		
Keshanta-Mastaka antara	11		

#### Table 4 Measurements described by Susruta and Charak arranged in ascending order (12 -16 Angula)

Name of measure-Susruta	Measure in <i>angula</i>	Name of measure- charak	Measure in angula	
Bhagavistaara	12	Bhagaparinaaha	12	
Mehana-Nabhi	12			
Nabhi-Hriraya	12			
Hŗ daya-greeva	12			
Stanantara	12	Stanantara	12	
Mukhaayama	12	Aanana utsedha	12	
Manibandha sthoulya	12			
Prakoshtha sthoulya	12			

		Udara aayama	12
		Parswa aayama	12
		Ura utsedha	12
		Hasta	12
		Trika Utsedha	12
Paada aayama	14	Paada aayama	14
Paadamadhya parinaaha	14		
Gulphamadhya parinaaha	14		
Jangha Madhya parinaaha	14		
Jaanumadhya parinaaha	14		

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Karna-Avatuantara	14			
		Prapaani	15	
Indrabasti parinaaha	16			
-		Jangha parikshepa	16	
Amsapeetha Kurparantaraayama	16			
		Jaanu parikshepa	16	
		Kati vistaara	16	
Manibandha-Kurparantara	16			

 Table 5 Measurements described by Susruta and Charak arranged in ascending order (18 -120 Angula)

Name of measure-Susruta	Measure in <i>Angula</i>	Name of measure- Charak	Measure in <i>angula</i>
Jangha aayama	18	Jangha aayaama	18
Uru aayama	18	Uru aayama	18
Urovistaara	18		
		Prushtha Utsedha	18
Greeva parinaha	20		
		Sirodhara parinaaha	22
		Aanana parinaaha	24
		Uro vistara	24
Hasta aayaama	24		
		Uru parikshepa	30
Janu upari sakthi aayama	32		
Uru parinaaha	32		
Bhuja parimaana	32		
· •		Sira parinaaha	32

	Purushaayama 84
Purushaayaama 120	
Terminologies used in <i>pramana sharir</i> <sup>17</sup>	9. <i>Gulpha</i> (ankle joint) circumference
1. Shira (heads circumference)	10. Parshini (heels) breadth and length
2. Skandha (shoulder joint)	11. Pada (foot ) length
3. Aratani (from elbow joint to little	12. Manibandha (wrist joint) circumference
finger)	13. Tala (palm of hand) length and breadth
4. Prabahu (from shoulder joint to elbow	14. Pradeshini (index finger) length
joint)	15. Kanishthika (little finger) length
5. Prapani (from elbow joint to wrist	16. Anamika (ring finger) length
joint)	17. Shroni (pelvis) circumference
6. Jangha (from knee joint to ankle joint)	18. Chibuka (chin) length
circumference	19. Nasa-putta (area of nostril) length
7. Uru (from hip joint to knee joint)	20. Karna moola (base of ear) length
circumference	21. Bhru (eyebrows) length
8. Janu (knee joint) circumference	



22. *Nayna-anter* (space between two eyes) length

- 23. *Vadana-anter* (cavity of mouth)
- 24. Lalata (forehead) length
- 25. Mukha-ayam (width of mouth)
- 26. Greeva (neck) circumference
- 27. Vrishana (testis ) length
- 28. Mehan (penis) length
- 29. Bhag (vagina) width
- 30. Stana-anter (space between nipple)
- 31. Tarka (cornea) circumference
- 32. Drishti (pupil) circumference
- 33. Dasana (teeth) length
- 34. Udara (abdomen) circumference
- 35. Kaksha (axilla) length

Individual having appropriate measure possesses longevity, strength, *ojas* (immunity), happiness, power, wealth and quality of life<sup>18</sup>. *Pramana* of *purusha* provide detailed information of anatomical features that is helpful to know abnormality of body.

### Method of measurement:

Measurement is indicated by individual's own finger i.e. *swa-angul. Swa angul* is considered as length of proximal inter phalangeal joint of middle finger of right and left hand. It is most accurate for estimation of *angul pramana*<sup>19</sup>. Also length of middle finger, divided by five is *swa*  angul pramana<sup>20</sup>. Swa angul provides a flexibility of individualization. It is hard to replace the concept of swa angul by any modern instrument as vital growth varies in relation to many factors like country, race, profession, gender etc. Individual having balanced proportion of muscles, compactness of body do not get ill health The person having easily. balanced musculature can tolerate hunger, thirst, sun, cold and equilibrium of agni (digestive power) and normalize metabolism<sup>21</sup>. Vridha Vagbhatta also described angul pramana of different parts of body. The entire body is of eighty four  $angul^{22}$ . It is equal in ayam and vistar. So if each part of body in this measure is wholesome (normal) whereas the less or more is unwholesome. These measurements are not valid for asta-nindit purusha i.e. atti-hrishva (too short), attidirgha (very tall), aati-gaur (too white in color), atti-krishna (too black), atti-roma (excess hair on body), aroma (no hairs), attisthula (obese) and atti-krish (very emaciated)  $^{23}$ . These are the eight conditions of unhealthy individual. Acharya Susruta has mentioned the height of an individual is one twenty angul<sup>24</sup>. Commentator Dalhan explained that given height is measured by standing the person on his toes with raised

arms<sup>25</sup>. *Acharya* Charak and *vridha* Vagbhatta has mentioned height of an individual eighty four *angul*. Commentator Chakrpani has explained that height is to be measured from *pada–tala* (sole) to *shira-paryanta* (top of head) <sup>26</sup>. *Laghu* Vagbhatta has mentioned that height of person is three and half times of length of his hand of an individual<sup>27</sup>.

## Relation of *prakriti* with *pramana sharir*:

Prakriti is natural state of an individual based on the doshik predominance determined at the time of conception in uterus and remain unaltered during the life time. It provides information about the both physical as well as psychological constitution of an individual. This reflects the innate abilities and susceptibilities of an individual. These are seven in number i.e vata, pitta, kapha, vata-pitta, pitta-kapha, kapha-vata and sama prakriti<sup>28</sup>. Vataj, pittaj and kaphaj are heena, madhayam and uttam respectively<sup>29</sup>. The individuals of kaphaprakriti have long life span (dirghayu), pittaj have moderate life span (madhyam ayu) and vattaj prakriti have short life span (alpayu)<sup>30</sup>. Acharya vagbhatta mentioned that kapha prakriti purusha has long upper limb, big and elevated chest and wide forehead<sup>31</sup>. As kapha prakriti have most

accurate measurement of body so they are of *deerghayu*. While *vata prakriti* individuals are lean and thin and less developed body constitution, they have inaccurate measurement of body having short life span. And *pitta prakriti* have mixed or in between measurement, so they are of moderate life span.

## Relation of ayu to pramana sharir:

The physician before initiating the treatment of the patient should first of all examine his *ayu* (longevity). If he has long life span then ritu (season), agni (digestive power), vaya (age), deha (body build), bala (strength), sattva (mind), satamya (habituation), prakriti (constitution), bhesajya (drugs) and desha (habitat) should be examined<sup>32</sup>. Ayurvedic text shows that pramana sharir has major role in the determination of life span of an individual. The person with appropriate measurement will attain long life.

**Features for** *dirghayu* (long life span): The individual whose hands, feet, flanks, back, nipples, teeth, face, shoulder and forehead are big. Their finger joints, eyes and arms are long. Their eye brows, space in between the nipples and chest is broad. Their calves, penis and neck are short are of *deerghayu* (long life span). The person who has



features opposite to these should be understood as *alpayu* (short life span) and with mix features are madhymayu (moderate life span). The individual with deep located bony joints, veins, and ligaments, well developed body, steady sense organ, each ensuing division of the body (origination from feet to head) is having long life span<sup>33</sup>. The individual with broad fingers, hand and feet has fifty years of lifespan. The individual with broad chest, long arms and finger has sixty years of life span. The individual with long nose has seventy years of lifespan<sup>34</sup>. The individual with six *angul* length of ear, nose and forehead will live for hundred years. The individual who is able to touch his knee with his hands in standing erect position is of having long life span<sup>35</sup>. The infant with long chin, short eyebrows will die in second month $^{36}$ .

# DISCUSSION

*Pramana sharir* is important concept among the ancient concepts of Indian medical science. It has great anatomical significance. It is useful for estimating the status of health and longevity of an individual. Measurement of body is helpful in observing *ayu* and *bala* of body as *pramana* is one among *dashvidha pariksha*. *Pramana sharir* also describe the biological entities of body. It is fact that two individuals are not ever alike in their measurements as during adolescent they go through many changes in varying degrees. The development of tissues and maturation of body of individual living under different conditions shows differences in body appearance and extent. Praman sharir forms a quantitative expression to the variations. As kapha prakriti have most accurate measurement of body so they are of deerghayu. While vata prakriti individuals are lean and thin and less developed body constitution. they have inaccurate measurement of body having short life span. And *pitta prakriti* have mixed or in between measurement, so they are of moderate life span. The concept of *ayu* is critical concept of avurveda. In modern science there is no such concept is found which can estimate the longevity only by measuring the body. The concept of pramana also helps to estimate prognosis and treatment by the help of dashvidha pariksha.

# CONCLUSION

Ayurveda is not only science of life but also a treasure of knowledge regarding mankind and has created many ways to prevent the deviation from health. *Angul pramana* 



provides an accurate measure of body. It is a tool which is used for anatomical assessment of both healthy and diseased. In healthy individual it helps to determine longevity and quality of life while in diseased person it helps in diagnosis and prognosis of disease. The normal proportion indicates good health as well as excellent quality of life. Pramana provides scientific value of structural and functional judgment of health of an individual. Kaphaj prakriti purusha has pralamb bahu (long arms) and well developed body constitution so these are dirghayu (long life) while individuals of vata prakriti are lean and thin with weak body constitution, they are of *alpayu* (short life span). Pitta prakriti have mixed or in between measurement, so they are of moderate life span. So there is a significant relation between pramana sharir, prakriti and life span of an individual.



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