

# Pramana Sharir: An Ancient Method of Measurement of Body Constituents and its Utility in Various Fields of Ayurveda

**Sandeep Lahange<sup>1\*</sup> and Archana Bhangare<sup>2</sup>**

<sup>1</sup>PG Department of Sharir Rachana NIA, India

<sup>2</sup>Department of Kayachikitsa, Mahtma Jyotiba Fule Ayurved College and Hospital, India

**\*Corresponding author:** Lahange Sandeep Madhukar, Associate Professor, PG Department of Sharir Rachana NIA, Jaipur 302002, India, Email: sandiplahange@gmail.com

## Review Article

Volume 3 Issue 4

**Received Date:** November 06, 2019

**Published Date:** November 29, 2019

**DOI:** 10.23880/jonam-16000210

## Abstract

Anthropometry is systemic, quantitative representation of human body. Anthropometry is a Latin word. Anthropos means human and metry means measurement. Anthropometry is the study of the measurement of the human body in terms of the dimensions of bone, muscle, and adipose (fat) tissue. Anthropometry was first used in 19<sup>th</sup> and early 20<sup>th</sup> century in criminalities to identify criminals. Now it has wide application in the field of medicine, space programming and archeology. Anthropometry plays an important role in industrial design, clothing, design, ergonomics and architecture where statistical data about the distribution of body dimensions in the population are used to optimize products. Changes in life styles, nutrition and ethnic composition of populations lead to changes in the distribution of body dimensions (e.g. the obesity epidemic), and require regular updating of anthropometric data collections.

In ancient Anthropometry the overall measurements were done in *Swa-Angula Pramana*. Our Seers explained the concept of *Swa-Angula Pramana*. It can be ideal parameter irrespective of sex, race and place. The growth of the body varies indifferent ages and gets ceased after a particular stage, though the average measurement of the body is fixed by random study, the variation of measurement in growing age may take place. If we see the development of modern Anthropometry it helps in various fields of Science, Art and Business, but the concepts of *Ayurveda* are unique as on the basis of these *Pramana* one can know not only about the prognosis diagnosis of diseases but also about the longevity of an individual. So it is necessary to explore the concept of Anthropometry practiced in ancient era as *Pramana Sharir* and its utility in clinical, Para clinical and surgical fields.

**Keywords:** Pramana Sharir; Swa-Angula Pramana; Anthropometry, Anguli Pramana; Anjali Pramana

## Introduction

Anthropometry is the measurements of human body which provides scientific methods and techniques for taking various measurements and observations. The word 'Anthropos' means human and 'Metry' means measurement. It is the science that defines physical measures of a person's size, form and functional capacities. It is the systematic collection and correlation of measurements of the human body. Anthropometric measurements are used as a proxy measure for many purposes for the assessment of health status, physique, obesity, growth and development, nutritional status, economic development, human evolution, estimating skeletal frame size, sports and physical strength. The measurements of different body parts which include the segmental lengths, bodily breadth, circumferences of trunks and limbs, skin and subcutaneous tissue fold thickness is used for designing instruments and equipment's for human use. It deals with various measurements related to the human body such as pelvimetry, craniometry, osteometry, skin fold thickness, height and weight measurements etc. Instruments used for measurements - Stadiometer, Anthropometer Rod, Head Height Needle, Spreading Calliper, Skinfold calliper, Palatometer, Goniometer, Tape, Croniophore, Mandibulometer.

*Maana* is classified into two types one is *Kalingamaana* and other is *Magadhamaana*. The measurements are detailed in *Sarngadhara Samhita*. *Maana* deals with measurements of any entity, substance, parameter etc. characteristics of *Maana* depend on the nature of substance or entity to be measured. This *Maana* divided into *Payamaana*, *Druvayamaana*, *Pautavamaana*. *Payamaana* are able to measure the length of various body parts, medical instrument and various length parameters. *Druvayamaana* are able to measure volume of liquid, amount of fluids etc. *Pautavamaana* are able to measure weight of various substances. In *Ayurveda* different types of *Pramanas* like *Anjali pramana Anguli Pramanas* are mentioned. *Swa-Anguli* is the unit measurement of body parts and structure. The essentiality of *Praman* is depicted in the fundamentals of *Ayurveda* as, the *Mana/ pramana* of *Hitayu*, *Ahitayu*, *Sukhayu*, and *Dukhayu* is the one which constitutes *Ayurveda*.

*Ayurvedic* literature pertaining to *Sharir Rachana* furnishes detailed description on measurements of body and its elements. In our classics *Praman Sharir* is the term given to this subdivision which depicts the importance of

measurements or Anthropometry. *Praman*, the other way defines the concept of measurements of various biological entities. It bears an ample importance in medical applied science. Before starting with the *Chikitsa* which is consider as *Karya* in the field of medicine, the wise physician should perform the *Pareeksha of Karyadesha* i.e. *Aatur Sharira*. *Acharya Charaka* explained *Dashveedha Pareeksha vidhi* and *Praman Pareeksha* is one of them [1]. The basic goal behind *Pareeksha* is to get knowledge regarding the *Bala of Rogi*, where *Acharya Sushruta* considered it as the main tool to get the information regarding *Ayu* along with that of *Bala* [2].

The *Sharir Praman* is only tool for determining the *Ayu* of an individual. The *Ayurvedic* classical literatures are documented along with many hypothetical concepts. In the classics *Anguli* (finger breadth) *Pramana* of different parts of the body is categorically mentioned *Rogi Pariksha* will be appreciated by the descriptions of the measurement of the different body part given by the our *Acharyas*. The unit of measurement use for this is the subject' *Swa Anguli Pramana* (finger breadth) under the present scheme of Anthropometry the standard unit of *Angula* has not been utilized as the unit measurement if the own finger breadth use for this purpose this arise the question regarding the definite anatomical points where the *Anguli* should be measured to find out the unit of measurement in every individual and second question is definite anatomical points regarding *Anga Pratyanga* description not given by our *Acharyas*.

*Acharya Chakrapani* commenting on *Sushruta Samhita* has indicated the site of the proximal inter-phalangeal joint of the middle finger, Root of the finger and thumb as the three possible standard of *Angule pramana*. *Acharya Dalhan* described *Swapani tala* (hand breadth) is 4 *Angula*. *Addhamalla* commenting on *Sarangdhar Samhita* in relation to *Maan* (measurement) definition indicated the site width of *Madhyam Parva* (proximal inter phalangeal joint) of *Madhyamanguli* ( middle finger) or *Nakha tala bhaga* of *Angusta* (thumb) is the possible sites for measurement of *Anguli* as the unit of *Anguli Pramana* [3]. But the exact anatomical points of measurement are not mentioned. Thus a problem of standardization of *Anguli Pramana* is pauses before the workers under the *Ayurvedic* concept of Anthropometry. A similar situation arises regarding the fixation of exact anatomical points of reference in connection with the measurement of different body part given in *Ayurvedic classics*. The concept of *Ayurveda*, i.e. measurements with individual parameter looks more scientific method rather than fixing on average basis. But the individual

anthropometric points and criterion to measure are not mentioned in our classics, hence with the help of modern science an effort was made to establish that inclusion of *Pramana Sharir in Ayurvedic Classics* is both scientific and authentic.

The concept of *Pramana* is also one among them which should be evaluated scientifically to bring out the hidden logical knowledge of *Ayurveda*. *Pramana* of *Purusha* gives the detailed information regarding each body parts in terms of its external features. This can be helpful in the understanding the anatomical knowledge required for the practice of *Ayurveda*. Where *Acharya Sushruta* considered it as the main tool to get the information regarding *Ayu* along with that of *Bala Acharya Sushruta* has explained before treatment of the patient, the physician should first examine the *Ayu*, if it is on the positive side then he should examine *Vyadhi, Agni, Vaya, Dehabala, Satva, Satmya, Prakruti, Bhesaja* and *Desha* [4]. The patient or individual having appropriate *Pramana* of different *Anga Pratyangas* mentioned is considered to attain *Deerghayu and Vittha* and those with. He has categorically mentioned *Angula Pramana* of *Anga Pratyanga* of human body this is determined by the measuring *Utshedha* (height), *Aayam* (length), *Vistar* (breadth) of the *Anga pratyanga* of an individual by taking his own finger (*Swa Angule*) breadth as the unit measurement. according to *Acharya Charaka* height is 84 *Angula* he has put forth *Sama Sharira* concept according which an individual having *Sama Aayama* (height) and *Vistar* is conceded to have some *Sharira* the portion will have *Uttam Ayu* (longevity), *Bala* (good strength), *Oja* (energy). *Sukha* (happiness), *Aishvarya* (power) moderate and poor measurements attain *Madhyama* and *Alpaayu* respectively [5]. *Acharya Charak* and *Vagbhat* described height of individuals should be 84 *Angula*. *Acharya Sushruta* has expressed a different opinion regarding the height of the individual. He has mentioned the height of man as 120 *Angulas*. *Dalhana* states that height given by *Sushruta* is to be measured in standing position with arms raised above the head. *Chakrapani* stated that the *Pramana* given by *Acharya Sushruta* is smaller as compare with *Acharya Charaka*. *Vruddha Vagbhatta* has explained the *Anguli pramana* based on *Swa-Angula pramana* [6]. He has explained various measurements of different *Anga* and *Pratyanga* of human body and has also explained *Sama Shareera* concept. Detailed description regarding the *Pramana Shareera* is not available in *Astanga Hrudaya*. However *Acharya* has explained that the appropriate height of a person is equivalent to 3½ times the length of his *Hasta*. *Acharya Bhela* specifies that the individual with *Lalata, Karna and Nasika* of length 6 *Angula* each will attain

*Shatayu* [7]. The concept *Pramana* is also one among them which should be evaluated scientifically. The modern Anthropometry also has a similar kind of intentions in the field of medical science. Anthropometry provides the single most portable universally applicable inexpensive non-invasive technique for assessing the size proportions.

### Pramana

The sources which are helpful to require true knowledge is called *Pramana*. The true knowledge about characteristics of an object is known as *Prama* and the tool or most essential cause by which this true knowledge can be gained is known as *Pramana*. *Acharya Charaka* says that all the things in world can be divided into two types either true or false means existing or non-existing and they can be tested by *Pramana*.

**Synonyms of *Pramana*:** *Upalabdhi, Sandhana, Pariksha* are the synonyms for *Pramana*.

### Anguli

The word *Anguli* derived from root word *Anga* with *uli* suffix which means digit subdivision of *Hasta* (hand) and *Pada* (foot) are *Anguli*. According to *Acharya Sushruta* total no of *Anguli* in the body are 20. These are respectively *Angustha, Pradesini, Madhyma, Anamika* and *Kanisthika*, means *Angustha* is 1<sup>st</sup> toe or thumb, *Pradesini* is 2<sup>nd</sup> toe or index finger, *Madhyma* is 3<sup>rd</sup> toe or middle finger, 4<sup>th</sup> toe or ring finger and *Kanisthika* is 5<sup>th</sup> toe or little finger. Synonyms of *Anguli* are *Anguri, Angula*.

### Angula Pramana

To measure height, armspan, circumference of body organs by individuals own *Anguli* is known as *Angulapramana*. References regarding *Angulapramana* can be visualised in the every ancient scriptures itself. Scattered references are found from *Yajurveda* and *Atharvaveda* and also from medical as well as nonmedical literature of post *Vedic period* in the form of *Samhita, Purana, Upanisad* etc. It has been described in different contexts as *Pramana* of different parts of human body and as a unit measurement for measuring distance between two points and also measuring depth, length of different *Yantra, Sastra* etc. *Acharya Vangasena* in *Vangasena Samhita* has mentioned knowledge of *Pramana* as one of the key to achieve success in the field of medicine [8]. Quantity that fills a vessel of 4 *Anguli* in each of its length, breadth and height prepared out of mud, wood, bamboo or metal is one *Kudava*.

## Ajnali Pramana

An important tool of measurement during *Samhita* period was *Anjali Pramana*, to measure constitute of body such as *Rasa*, *Rakta*, etc. By joining both palms at little finger we get the measurement unit of *Anjali Pramana*. *Acharya Charaka* had given the detailed measurement of *Sariragata Dhatu* and *Mala, Mutra*, there are ten *Anjali*, by the standard of the individuals own *Anjali*, of fluid which if discharged accompanies faces, urine, blood, or other *Dhatu*, circulating in the entire body is held up by the outermost layer of the skin, beneath the skin exists as lymph exuding through wounds; under influence of the heat goes out of hair follicles as sweat. Nine *Anjali* of first *Dhatu* being product of food and which is known as *Rasa*, eight *Anjali* of blood, seven of faces, six of *Kapha*, five of *pitta*, four of urine, three of muscle fat, two of fat, one of bone marrow, half *Anjali* each of brain substances, semen and *Oja*. References regarding *Anjali Praman* also present in *Astanga and Kashyapa Samhita* and other classics too.

*Pramana Sharir* has a wide scope in a various fields like *Dravyaguna*, Surgical & Parasurgical instruments manufacturing (*Yantra, Sastra, Bastriyantra*), *Rogipariksha*, sports anatomy, *Rasashastra* etc. The means of measurement used by all *Acharya* was different for volume & length as *Anjali & Angulipramana* with the help of the individual own finger hence termed as *Swangulipramana*. These measurements are used in the form of ratio indices in modern anthropometry after profound development this was found out but in ancient system of medicine it is clearly said. Based on this same *Hina* (less) and *Adhika* (more) has categorised further [9].

## Utility of Pramana in Different Fields of Ayurveda

### Dimensions of the Instruments

Measurements of needles for various *Sashtra Karma* should be circular and two fingers in length to be used in less fleshy parts and joints and three fingers in length to be used in fleshy parts [10]. In men, *Pramana* of instrument for *Arsha* treatment is 4 *Angula* in length and 5 *Angula* in *Parinaha*; in female it is of 6 *Angula* in circumference and of *Tala* length. Length of *Pushpanetra* in *Uttarvasti* should be 10 *Angula*. The first anal fold is located one finger after anal lip. *Stanarohita Marma* is situated two fingers above the nipple of the breasts on both sides. Eye ball measures 2 *Angula* and with *Angula* being measured as width of middle portion of one's own thumb. It is two and half *Angula* from all sides. It is

spherical, shaped like cows teat and originated from all five *Mahabhutas* along with their properties.

An expert surgeon should make an incision in the left pelvic region below the umbilicus leaving four fingers breadth of space (from the level of umbilicus) with the help of an appropriate surgical instrument for describing the dimensions of body organs especially in context of *Marma*. *Marma* are described at specific locations with their dimensions in *Angula* and locations are described in relation to various anatomical land marks. *Urvi, Kurchasiras, Vitapa* and *Kakṣadhara marmas* measure 1 finger each; *Stanamula, Mañibandha* and *Gulpha* are 2 fingers each in measurement; *Janu* and *Kurpara* are 3 fingers each. *Gayi*, however, reads another version and following *Bhoja*, interprets *Stanamūla, Gulpha, Indrabasti* and *Manibandha*- these *Marmas* as measuring 2 fingers each; similarly in his view, *Janu* (2), *Ani* (4), *Kurpara* (2)- these eight *Marmas* measure 3 fingers. *Hridaya, Basti, Kurcha, Guda* and *Nabhi* along with 4 *Srungatakas*, five *Simantas* and 12 blood vessels measure 4 fingers each; the remaining (56) *Marmas* should be known as half finger breadth. Others consider 56 *Marmas* as measuring equal to closed palm or fist. Surgical incision should be done in *Udara* patients in left pelvic regions below the umbilicus leaving four fingers breadth of space from the level of umbilicus using suitable surgical instruments.

In *Padadaha, Padaharsa, Chippa, Visarpa, Vatasonita, Vatakantaka, Vicarcika, Padadari* etc. Venesection should be done with *Vrihimukha* instrument 2 fingers above the *ksipramarma; Slipada* e treatment should be as described in its treatment; in *Kroṣṭukasirsa, Khanja, Pangu* and other *Vata* conditions, venesection is done in leg 4 fingers above ankle; in scrofula, vein should be incised 2 fingers below *Indrabasti*; in sciatica it should be done at 4 fingers above and below knee joint. In intestinal obstruction and perforation, the patient should be oleated, sedated and massaged before the incision is made below umbilicus on the left side 4 fingers from the hair- line, and intestines measuring 4 fingers should be taken out and inspected. In Ascites, when the patient is held tightly by the attendants and covered up to armpits, trocar is inserted in the abdomen below the umbilicus on the left side four fingers away from the hairline. Measurement of nozzle for *Bastinetra* is described in terms of *Angula* should be administered *Bastinetra* with 12 fingers long and circumference with midpoint of the thumb at root and that of little finger at the tip is used in Individuals above 25 yrs.

### Uses in the Field of *Dravyaguna*

- For describing the morphology of medicinal or herbal plants.
- Some of the measurements of the medicinal plants are being described in terms of *Angula* like *Shwetakapoti* is a leafless plant is of golden hue. It is two fingers broad at the root, snake like and red at the tip, *Mahasravani* is of golden colour and milky. The herb is one cubit long having leaves 2 fingers broad, flowers resembling blue water lily and fruits like *Anjana*.

### Uses in the Field of *Panchakarma*

**Measurements of Bastineta:** While describing the *Uttara Basti*, specifications of insertions of *Bastineta* are described in terms of *Angula*. In case of *Uttara Basti* in genital organs of adult woman, nozzle is advised to be inserted up to 4 *Angulas* and for douche in their urethral passage, it should be inserted up to 2 *Angulas*. In case of young girls, it should be inserted up to 1 *Angula* in their vaginal passage. While describing the *Dhumapananetra*, its length is measured in terms of *Angula*. For the *Virechana*, smoking pipe should be of length of 24 fingers breadth, measuring with one's own fingers; for *Snaihika Dhumapana*, it should be 32 fingers breadth and for the *Prayogika Dhumapana* it should be longer by a half than the first (36 finger breadth).

### Uses in the field of *Rasasashtra*

- While processing the iron especially *Tikshna* type of iron should be chiselled so as to become thin leaves of four *Angulas* in length. Their thickness should be like that of the sesame seed [11,12].
- While describing the measurements of *Koshti* and *Putra*

*Acharya Charaka* explained *Dashveedha Pareekshavidhi* and *Praman Pareeksha* is one of them. The basic goal behind *Pareeksha* is to get knowledge regarding the *Bala* of *Rogi* where *Acharya Sushruta* considered it as the main tool to get the information regarding *Ayu* along with that of *Bala*.

### References of *Angula* in *Samhita*

1. For describing the anatomy and location of structures in the body with respect to one another.
2. For describing the length of body organs especially in context of *Marma*.
3. For describing surgical incisions sites, *Siravedha* sites and dimensions of surgical instruments.

4. For describing the features of medicinal or herbal plants.
5. For describing the *Panchakarma* procedure and instruments.
6. For describing ingredients in *Bhaishajya kalpana*.

### Discussion

*Maana* is a tool of measurement. Different types of *Maana* described by *Ayurveda sabdakosa* are *Tulamaana*, *Prasthamaana* and *Angulimaana*. In general there are three types of *Maana*, in which *Pautavamaana* used for measuring weight of solid substances. In *Ayurveda* the *Pramana* is described as a medium of knowledge. In other context *Pramana* is described for the measurement or with the help of which measurement is done is called *Maan*. *Acharya Charaka* describes two types of *Maan* - *Magadh Maan* and *Kalinga Maan* (In *Kalpa Sthana* 12/105) in context of weight measurement. In *Amarskosh* three type of *Maan* were adopted *Paayamaana* (linear measurement) *Poutav Maan* (weight measurement) and *Druvayamaana* (volume measurement) [13]. Description of *Paaya Maan* (Linear measurement) is found in *Ayurveda* in the form of *Anguli*, *vitasti*, *Aratni*, *Hasta*, *Yava*, *Vrihi* etc. Measurement is determination of the magnitude of a quantity by comparing with a standard for the same. A definite sate of standard unit having consistent interrelation, used to determine magnitude of an entity can be called as measurement system. Measures were among the earliest tools invented by human. Primitive societies needed rudimentary measures for many tasks: constructing dwelling of an appropriate size and shape of, fashioning clothing and bartering food or raw materials. Human understand ably turned first to parts of his body and his natural surroundings for measuring instruments. Early Babylonian and Egyptian records, and the Bible, indicate that length was first measured with the forearm, hand, or finger. In modern era metric system first came about in the 1790 when French academy of science was asked to construct a new system of unit for use throughout the world the current international standard metric system (SI) unites accepted by the 11th conference of weights and measures in 1960. Finger is an ancient and absolute non-SI unit of measurement of length. It was originally based on the breadth of a human finger. Among the prevalence system of unit it was a fundamental unit of length. Finger is an ancient and absolute non-SI unit of measurement of length. It was originally based on the breadth of a human finger. Among the prevalence system of unit it was a fundamental unit of length.

*Pramana Sharir* is described as the knowledge related to the body in context of life-span, measurement of parts and sub-parts of the body. The body has been described (in terms of measurement) with own fingers. The entire body is 84 *Angula* in vertical length and if vertical height of the body is equal to the horizontal length in position when arms are abducted up to 90 degrees, then it is in *Sama Pramana*. The persons having normal measurement of the body are endowed with longevity, strength, immunity, happiness, supremacy, wealth and other qualities. Those having body with less or more measurement have qualities contrary to these. The expert physician succeeds in his work if he proceeds after examining the life-span particularly on the basis of measurement of parts and sub-parts of body. All this description of *Pramana* shows that the concept of *Pramana* was basically developed very early in the era of *Ayurveda*. In *Ayurveda*, the concept of *Pramana* is used widely in different branches like *Pañcakarma*, *dravya guṇa*, *bhaiṣajya kalpanā*, *Sharir Rachana* etc in different ways. The modern science developed the concept of *Pramana* in the form of new branch which is called anthropometry. The difference is that in *Ayurveda* the measurements were taken with help of *Swa-Angula*. There was no development of instruments to take measurement but the modern science has developed so many instruments like vernier calliper, anthropometer rod and craniophore.

Science always encompasses principles and facts that are methodically attested and undeniably accepted. *Pramana* was the criterion to measure the stature and dimensions of the body parts as they are tools to assess the patient before and after treatment. Anthropometry of the contemporary system is defined as the study of the human body in terms of bone, muscle, adipose tissue and correlated with risk of systemic as well as life style disorder. *Prakruti* helps to determine the general built and characteristic of an individual who is important in detecting *vyadhi* and predicting prognosis of a disease in addition to plan the treatment accordingly. *Pramana-pareeksha* is included among the *dashavidharogipariksha* by Acharya Charaka. *Pramana Shareera* deals with *Ayu*, *Bala* etc. as described by Acharya Charaka & Acharya Sushruta. *Ayam Vistara* deals with *Ayu*, *Bala* etc. as described by Acharya Charaka. The finger breadth of the individual is taken as the unit measurement for measuring the length, breadth; circumference of different parts and sub-parts is explained by Acharya Charaka, Acharya Sushruta and Acharya Vagbhatta. Measurements of different *anga - pratyanga* of human body are described by Acharya Charaka, Acharya Sushruta and Acharya

Vagbhatta [14]. Thus *Anguli Pramana* is an enhanced tool to describe dimensions compared to absolute measurements. It gave in the first place, a unit of measurement. It was personalized as it differs from individual to individual. It was standardized because the result measured was not an absolute value but a ratio between the length of the part measured to the *Anguli pramaan*. This also shows to the modern scientific world the advanced state of Ayurvedic anatomy and thus *Pramana* can become a proof of what we can contribute to the modern community from what we can learn and comprehend from the study of our ancient literatures. New Ayurvedic indices may be discovered, analyzed and incorporated into the Ayurvedic clinical examination proforma to improve *Pramana Pareeksha* and *Aakriti Pareeksha* described in *Dushvidha* (tenfold) and *Ashtavidha Pareeksha* (eightfold) and to give them mathematical representation for objective analysis to replace the current subjective assessment. Anthropometric data can be used to evaluate unknown body measurements from known measurements. This is highly significant in developing concepts related to forensic medicine in Ayurveda, a perfect example in this regard being estimation of total height from various known measurements based on references of *Pramana Shareer*. Thus, we can see concepts of anthropometry are described in *samhitas* at places with significant elaboration which shows concept of anthropometry in ayurveda and shows the path for further illustration for better use.

## Conclusion

All this description of *Pramana* shows that the concept of *Pramana* was basically developed very early in the era of *Ayurveda*. In *Ayurveda*, the concept of *Pramana* is used widely in different branches like *Panchakarma*, *Dravya Guṇa*, *Bhaiṣajya Kalpanā*, *Sharir Rachana* etc. in different ways. The modern science developed the concept of *Pramana* in the form of new branch which is called anthropometry [15]. The difference is that in *Ayurveda* the measurements were taken with help of *Swa-Angula*. There was no development of instruments to take measurement but the modern science has developed so many instruments like vernier calliper, anthropometer rod and craniophore. With advancement of time, science is expanding its wings in every field but basic principles remain always unchanged. That's why modern science also follows all these ancient principles so the knowledge generally found in modern medical literature is nothing but the amendment of *Ayurvedic* knowledge or literature. Thus the elaborated description of *Pramana Sharir* in the

ancient literature shows the well-established concept of anthropometry in past era.

### References

1. Sengupta KSN, Sengupta KSB (2011) Agnivesha, Charaka Samhita revised by Maharshi Charaka and Dridhavalva with Ayurvedadipika Commentary of Srimat Cakrapanidatta and Jalpakalpataru explanatory notes and annotations of Mahamahopadhyaya Sri Gangadhar Kariratna Kaviraja in Sanskrit, Rashtriya Sanskrit Sansthan, New Delhi.
2. Acharya VJT, Kavyatirtha NRA (1999) Sushruta Samhita with Nibandhasamgraha Commentary of Sri Dalhanacharya and the Nyayachandrika Panjika of Sri Gayadasacharya on Nidanasthana in Sanskrit, Chaukhambha Orientalia, Varanasi.
3. Sastri PP (2006) Sarangadhara Samhita with Adhamalla's Dipika and Kasirama's Gudhartha dipika commentary, 1<sup>st</sup> (Edn.), Choukhamba Subharati Prakashan, Varanasi.
4. Srikantha Murthy KR (2007) Sushruta Samhita with text, English translation, notes, appendices and index, 3<sup>rd</sup> (Edn.), Chaukhambha Orientalia, Varanasi.
5. Acharya VJT (2006) Charaka Samhita revised by Charaka and Dridhabala with Ayurvedadipika Commentary of Sri Cakrapanidatta in Sanskrit, Chowkhamba Krishnadas Academy, Varanasi.
6. Bhisagacharya HP (2000) Ashtanga Hrudaya with Sarvangasundari of Arunadatta and Ayurvedarasayana of Hemadri, Choukhamba Surbharathi Prakashan, Varanasi.
7. Bhela Samhita (2000) Text with English translation, commentary and critical notes, 1<sup>st</sup> (Edn.), Publisher Chaukhambha Visvabharati, Varanasi.
8. Samhita V, Tripathi PHP (2008) Chaukhambha Sanskrit series office, 1<sup>st</sup> (Edn.), Varanasi.
9. Acharya VJT, Kavyatirtha NRA (1999) Sushruta Samhita with Nibandhasamgraha Commentary of Sri Dalhanacharya and the Nyayachandrika Panjika of Sri Gayadasacharya on Nidanasthana in Sanskrit. Chaukhambha Orientalia, Varanasi.
10. Dhannajay, Kumawat NK, Jain N, Bhatnagar V (2015) Significance of Anguli Pramana in Ayurveda: A Critical Review. IAMJ 3(3): 1-6.
11. Misra AS, Vigyana ABK (2007) Choukhamba Subharati Prakashan.
12. Sharma S (2007) Ayurvedacharya Shri Haridatt Shastri, Motilal banarasidas, banglo road, 7<sup>th</sup> [Edn.], jawaharnagar, Delhi.
13. Shastri H (2006) Amarakosha. Varanasi: Choukhambha Sanskrit Sansthan.
14. Chandrakantabhattacharya S (1999) Sushruta Samhita originally expounded by Kashiraja Divodasa Dhanvantari with the commentary Sushrutartha Sandipana Bhashya by Kaviraja Haranachandra Chakravarti in Sanskrit, Chaukhamba Surbharati Prakashan, Varanasi.
15. Singh IP, Bhasin MK (1989) Anthropometry. Delhi: Kamala Raj Enterprises.

