



Review Article

Volume 12 Issue 4

July-August 2023

## SIGNIFICANCE OF RACHANA SHAREERA (ANATOMY) AND ITS APPLICATIONS IN THE CLINICAL PRACTICE

<sup>1</sup>Dr Pralhad S\* and <sup>2</sup>Dr Aditi P S

<sup>1</sup>Professor, <sup>2</sup>Associate Professor, Yenepoya Ayurveda Medical College, Yenepoya Deemed to be University, Mangalore (Karnataka)

Corresponding Author's Email ID: [pdsubbannavar@gmail.com](mailto:pdsubbannavar@gmail.com)

### Abstract:

Anatomy has been a foundation of medical education for thousands of years. Though, in recent years, study of Anatomy has been in decline for many years. For clinical professionals, the human body is the emphasis of exploration and intervention on a day-to-day basis, so the study of anatomy in some form will continue to be essential for safe medical practice and more importantly surgical practice. It is necessary for essential information of anatomy to be adapted by all who are related to clinical practices. It may be real that most do not need to dissect a cadaver in order to practice, but if it can improve their basic knowledge about anatomical structures such as musculoskeletal disorders, cardiovascular disorders, neurological disorders and so many diseases of what they have to manage them, this assuredly has to be of advantage both for the safety of the patient and contentment of the doctor as a specialized professional.

## Introduction-

शरीरसङ्ख्यां यो वेद सर्वावयवशो भिषक्। तदज्ञाननिमित्तेन स मोहेन न युज्यते॥

अमूढो मोहमूलैश्च न दोषैरभिभूयते। निर्दोषो निःस्पृहः शान्तः प्रशाम्यत्यपुनर्भवः<sup>1</sup>

Acharya Charaka mentions about the knowledge of Shareera and its *avayavas* (organs, anatomical relations etc.) and its influence on the treatment procedures as well as any interventions which will be performed by the physician. Once he accomplished the thorough knowledge after that only he will be recognized as a successful clinician.

शरीरविचयः शरीरोपकारार्थमिष्यते। ज्ञात्वा हि शरीरतत्त्वं शरीरोपकारकरेषु भावेषु ज्ञानमुत्पद्यते।

तस्माच्छरीरविचयं प्रशंसन्ति कुशलाः ॥ <sup>2</sup>

In this context Acharya Charaka mentioned about the sense of wellbeing and a good health is only achieved by the accurate equilibrium of anatomical structures with relation to their physiological functions. The concept of sound health in retaining one's body stature is also explained.

## Contemporary views.

*"Anatomy should rightly be regarded as the firm foundation of the whole art of medicine and its essential preliminary."* - **Vesalius wrote in De Fabrica (1543)**

*"The foundation of the study of the art of operating must be laid in the dissecting room".*

**Robert Liston**

To throw some light on the significance of Anatomy subject, recent publications have shown that modern medical curricula has significantly reduced the significance of essential anatomy teaching in terms of student contact hours. In response to decreased contact hours, it has been suggested that anatomy education should focus more closely on a subset of the most clinically relevant topics. Springer - Publisher Connector Stakeholder views of anatomy in medical education. Survey of 93 physicians across US medical schools, who were asked to assess the relative importance of various topics taught on a human gross anatomy course.

They reported that the perceived importance of specific anatomical topics was largely determined by the respondent's area of speciality and /or clinical affiliation. However, subject of anatomy was ranked as both highly important and clinically relevant by all respondents.

**Table 01: Clinician's perception on the relevance of Anatomy in medical education.**

***Relevance of anatomy to medical education and clinical practice: perspectives of medical students, clinicians, and educators***

*Amgad Sbayah,<sup>1</sup> Mohammad A. Qaedi Choo,<sup>2</sup> Kathleen A. Quane,<sup>1</sup> Paul Finucane,<sup>3</sup> Deirdre McGrath,<sup>3</sup> Siun O'Flynn,<sup>2</sup> Siobhain M.O'Mahony,<sup>1</sup> and Colm M. P. O'Tuathaigh corresponding author<sup>2</sup> - (PUBMED)*

S. No.	Question	Likert scale data (responses in %)					Mean (± SEM)
		1	2	3	4	5	
1	Cadaver contact is important toward acquiring sufficient clinical knowledge and skills	0	0	3.3	10	86.7	4.83 (0.08)
2	I understand the importance of anatomy education and my clinical practice ( $p = 0.04$ )	0	6.7	0	23.3	70	4.57 (0.15)
3	I am able to understand the structure of the human body through anatomy education	0	3.3	10	10	76.7	4.6 (0.15)
4	Anatomy education is important for lifelong, self-directed learning ( $p = 0.00$ )	3.3	16.7	40	23.3	16.7	3.33 (0.19)
5	Anatomy education has helped me to understand diagnostic imaging	0	6.7	20	20	53.3	4.2 (0.18)
6	Anatomy education has contributed to development of professional skills and ethics of medicine ( $p = 0.01$ )	3.3	26.7	30	30	10	3.17 (0.19)
7	Anatomy education has improved my teamwork and communication skills	3.3	20	36.7	13.3	26.7	3.4 (0.22)
8	Anatomy has helped me to link my knowledge of basic sciences with clinical sciences	3.3	26.7	16.7	23.3	30	3.1 (0.43)
9	Anatomy has improved my analytical and critical thinking	3.3	16.7	40	23.3	16.7	3.5 (0.31)

**Table: 02 - Another survey conducted on the title of - *Relevance of Learning Anatomy to Clinical Practice Priyadharshini et al. National Journal of Clinical Anatomy Vol. 8 No. 1/2019***

**Priyadharshini N. A.<sup>1</sup> Dinesh Kumar V.<sup>2</sup> Rajprasath R.<sup>3</sup> Rema Devi<sup>3</sup> (Research Gate)**

Clinicians' perspectives on importance of anatomical knowledge in various aspects of clinical care

S. No.	Question	Likert scale data (responses in %)					Mean ( $\pm$ SEM)
		1	2	3	4	5	
1	Patient history	3.3	10	26.7	30	30	3.3 (0.42)
2	Physical examination	0	3.3	10	26.7	60	3.9 (0.31)
3	Differential diagnosis	0	0	30	36.7	33.3	3.6 (0.22)
4	Treatment	6.7	6.7	13.3	40	33.3	3.2 (0.47)
5	Imaging and diagnostic studies	0	10	0	23.3	66.7	4.1 (0.38)
6	Arrival at provisional diagnosis	3.3	6.7	26.7	30	33.3	3.3 (0.42)
7	Arrival at final diagnosis	3.3	3.3	20	36.7	36.7	3.6 (0.37)
8	Communicating the condition with patient	0	20	30	26.7	23.3	3.3 (0.3)
9	Communication with colleagues	0	10	23.3	33.3	33.3	3.9 (0.23)

Abbreviation: SEM, standard error of the mean.

**Some of the following references from our *Samhitas* are suggestive of the significance of Anatomical structures and their relevance in the clinical as well as surgical practice.**

**References which suggests the microscopic ideology by going through this shloka.**

शरीरावयवास्तु परमाणुभेदेनापरिसङ्ख्येया भवन्ति, अतिबहुत्वादतिसौक्ष्म्यादतीन्द्रियत्वाच्च।

तेषां संयोगविभागे परमाणूनां कारणं वायुः कर्मस्वभावश्च॥<sup>3</sup>

The human body is composed of trillions of cells. They provide structure for the body, such cells may be of large size as well as minute and they receipt nutrients from food, convert those nutrients into energy, and carry out specialized functions.

**1] Anatomy of Skin (त्वक् शरीर) -** In contemporary science the organ of skin is well described by the sole contribution of histological study and the diseases that occur in the respective layers, but Acharya Charaka and Sushruta described this similar explanation without the assistance of microscopes or instruments required for histological study. Even more, they have also specified the clue of genes and genetical disorders which may involve in the formation of skin diseases. So this kind of information is very much comprehensive as well as innovative.

Acharya Sushruta additionally highlighted on the thickness of each layer and their seat for diseases. And such indications are very much exceptional and not merely seen in contemporary science.

**2] In the context of disease *Kusta*** in Sushruta Nidana sthana 6 th chapter the meticulous prognosis is specified on the fact that if the lesions are on the skin then it will be *saadhya* (Curable) unlike if it is deeper than skin like *meda dhatugata* is *yapya* (Non healing) and finally if it is in *asthi dhatu* it is proven to be *asadhya* (Non curable).

**3] In the context of *Kshara karma*** (Alkali application), specific anatomical structures are enlightened like *sira*, *snaayu*, *marma*, *tarunasthi* etc should be secured from the effect of *kshara* which may be harmed by the result of *agni guna* and *kshanana* property. This indication is very well established and mentioned about the contra indications of such areas of the skin for the surgical procedures.

#### **4] Context of दश प्राणायतनानि**

In this context particular locations are specified about the seat of *Prana* and its significance. The existence of *prana* in these areas makes it vulnerable as well as vital. *Prana* which usually resides though-out the body which is seen to be predominant in such areas.

#### **5] In the context of *Marma Shareera*-**

And any injury to these regions will cause the obstruction and derangement of that pathway by producing serious symptoms or even death. So the reference about the terms such as *jeevasthanam*, *chetanadinibadha*, *jeevidam sthitam*, *jeevaagaaram*, *jeevadharani* etc. are much described in detail.

#### **6] सुखरोपणीय व्रण**

The wounds which are occurring in these anatomical structures or locations will heal without any difficulty, this knowledge is might have advocated on the source rich vascular supply.

न शक्यश्चक्षुषा द्रष्टुं देहे सूक्ष्मतमो विभुः । दृश्यते ज्ञानचक्षुर्भिस्तपश्चक्षुर्भिरिव च ॥<sup>4</sup>  
तस्मान्निःसंशयं ज्ञानं हर्त्रा शल्यस्य वाञ्छता । शोधयित्वा मृतं सम्यग्द्रष्टव्योऽङ्गविनिश्चयः ॥<sup>5</sup>

Further they also insist on that one should have such an intellectuality that tiniest matter can be understood by the mode of *Jnanachakshu*. Acharya Sushruta emphasized more on Cadaveric dissection which is very much essential to acquire the detail structural entities especially for the surgeons.

**Conclusion:** Anatomy, in its comprehensive concept, is the discipline that studies the development and constitution of living beings. Anatomy plays a significant part in refining clinical abilities of medical students. Most of our Acharyas opined the study of Anatomy (Shareera Rachana Shastra) is the fundamental necessity and also the subject related to the study of an individual's body, associated with the knowledge of diseases as well as surgical interventions.

### References:

1. Agnivesha. Charaka Samhita with Chakrapani commentary & Gangadhar Commentary. Vaidy Harishandra Kushvah Shareera Stahna chapter 7 shloka 19-20 page no 752 Chaukhamba Orientalia Varanasi
2. Agnivesha. Charaka Samhita with Chakrapani commentary & Gangadhar Commentary. Vaidy Harishandra Kushvah Shareera Stahna chapter 6 shloka 3 page no 725 Chaukhamba Orientalia Varanasi
3. Agnivesha. Charaka Samhita with Chakrapani commentary & Gangadhar Commentary. Vaidy Harishandra Kushvah Shareera Stahna chapter 7 shloka 17 page no 721 Chaukhamba Orientalia Varanasi
4. Sushruta Samhita with Dalhana & Gayadas commentary Shareera sthana Chapter 5 shloka 50 Page no 78 Chaukhamba Orientalia Varanasi
5. Sushruta Samhita with Dalhana & Gayadas commentary Shareera sthana Chapter 5 shloka 47 Page no 78 Chaukhamba Orientalia Varanasi