



A Study on Validation of *Sloka 'Tarunasthi Namayante....'* in light of *Sanskrit Grammar*

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ABSTRACT

Ayurveda is a sacred science of life. In all the living beings the matter and energy is existing in the form of *Dosha, Dhatu & Mala*. As we know that the reading is the source of obtaining the information only. The knowledge of the subject demands precise manner of study which called Analysis. Since, ancient time grammar has been tool for understanding and writing various texts whether literal work or any scientific. As *Sastras* were written in *Sutra Roopa, Vyakarana* (grammar) has always turned to be helping hand in extracting true meaning.

‘*Tarunasthi Namayante....*’, which states the relation of type of *Asthi* (bone) and type of *Bhagna* (fracture) generally occurring in them; cited from *Nidana Sthana*, giving sufficient proof of clinical orientation of *Acharya*. Classical grammatical analysis includes study of *Dhatupada*, their meaning, correlation with meanings in contemporary literature and their validation. After validation of we can say that principles both clinically and literally about classification of *Asthi* can be verified. As each principle is accountable so, it is upon us to elaborate and understand it under present circumstances. We can say that knowledge of classical grammar is of extreme importance to bring out real meaning out of *Sutras* of classical

text, thus making our principles more acceptable to new era and to take their maximum utilization in serving the nation.

KEYWORDS- *Asthi Prakara, Vyakarana, Tarunasthi Namayante., Dhatupada, Validation*

Introduction

Ayurveda is not merely a medical system; it is a sacred science of life. It helps the human being to lead a happy life with pure body and mind. In all the living beings the matter and energy is existing in the form of *Dosha, Dhatu & Mala*.^[1]

As we know that the reading is the source of obtaining the information only. The knowledge of the subject is very far from that information. It demands precise manner of study which called Analysis. Beside this, inspection is must to recognize the deep facts regarding to any subject. Since, ancient time grammar has been tool for understanding and writing various texts whether literal work or any scientific. As *Sastras* were written in *Sutra Roopa, Vyakarana* (grammar) has always turned to be helping hand in extracting true meaning. *Panini Sutras* are valuable hand in understanding *Gudha Artha* (deep knowledge) encrypted in *Sutras*.

Every *Sloka* is useful in present scenario so, is '*Tarunasthi Namayante....*', which states the relation of type of *Asthi* (bone) and type of *Bhagna* (fracture) generally occurring in them^[2]; cited from *Nidana Sthana*. As we can see that five types of *Asthi Prakaras* and their examples are given in *Sharir Sthana* of *Susruta Samhita* but above *Sloka* is part of *Bhagna Nidana*, giving sufficient proof of clinical orientation of *Acharya*; as he have described types before only for the better understanding of topic i.e. relation between *Asthi* and *Bhagna*.

Method

First of all a literary review of *Asthi Sharir* comprising of *Asthi Paribhasa, Sankya, Prakara* and *Bhagna* is done to bring out the basic information given in classical texts. Root meaning (*Dhatupada*) of *Bhagna* type is taken from *Panini Sanskrit Vyakarana Kosa*. Then meaning of root word is sorted out from *Monier Williams Sanskrit English Dictionary*. After which with the help of *Orthopedic Text book and Medical Dictionary* meanings are compared and a conclusion is drawn.

Literary Review

Asthi is a hard substance which remains even after most part of body has been decayed. According to *Susruta*, it is substance which remains even after else very part like flesh, muscles etc. are shattered after death.^[3] It remains as last identity of person even after demise. The *Asthi Karmas* are *Deha Dharana, Majja Pushti* and support to *Mamsa, Sira* and *Snayu*.^{[4][5]}

The numbers of *Asthi* in the *Sharira* according to different *Samhitas* are point of confliction as *Charaka Samhita*, *Astanga Hrudaya*, *Astanga Sangraha* and *Kashyapa Samhita* counts 360 ^{[6][7][8]} but *Sushruta Samhita* and *Bhavaprakasha* enumerated 300 ^[9]. As we know that knowledge of *Asthi* can be traced back from *Vedas*, passing chronologically down to *Samhitas*. Considering its history of description and importance many methods and thought can be visualized about enumeration in classical texts giving difference in its *Sankhya*.

***Asthi Bhedas* (Types)**

Depending upon size, shape, position of *Asthi* in the body total *Asthi* is divided into five types. These are tabulated below-

Table No.1: The Types of *Asthi* ^[10]

S.No	Types	S.S	A.S	A.H.	B.P
1	<i>Kapala</i>	+	+	+	+
2	<i>Ruchaka</i>	+	+	+	+
3	<i>Taruna</i>	+	+	+	+
4	<i>Valaya</i>	+	+	+	+
5	<i>Nalaka</i>	+	+	+	+

The **meaning and examples** of particular type of *Asthi* ^[11]

Kapalasthi - These are flat in nature. Literally it means bone which covers and protects the brain. These are present in the *Janu*, *Nitamba*, *Amsa*, *Ganda*, *Talu*, *Shankha*, *Vankshana* and *Madhyashira* are known as *Kapala Asthi*.

Valayasthi - These are round in shape or particularly hemi circle in shape. *This type is present in Pani, Pada, Uru, Parshva* and *Prustha* are *Valayasthi*. Some commentator's don't agree with it as they count some other bones in this category as *Pada*, *Hasta*, *Griva* and *Prishtha* ^[12].

Tarunasthi - These are soft in nature. Literally it means which have either not fully developed i.e. ossified. Also the bones of child have come under same scenario. These are present in the *Ghrana*, *Karna*, *Greeva* and *Akshikuta* are called as *Tarunasthi*.

Nalikasthi - These are long like tubes and hollow from within. They are reed shaped. *Asthi's* which are not counted in any other types are to be in *Nalikasthi*. Commentators like *Dalhana* and *Bhoja* have specified some of bones like *Hasta Anguli*, *Pada Anguli*, *Pada Tala*, *Kurcha*, *Bahu Asthi*, *Jangha Asthi* etc in examples of this type. Typically bones of extremities are *Nalakasthi*.

Ruchakasthi – These are bones which are different from above and are used to chew food and enjoy the taste. These are for taste sensation. The *Dashanas* are known as *Ruchakasthi*. These are 28 or 32 in all. So, here *Ruchaka* i.e. Danta (teeth) are also regarded as *Asthi* along with various other stiff parts

Types of *Bhagna*

Now, let us consider the type of *Asthi* on basis of type of *Bhagna* in them. The bones sustain trauma in different ways. *Acharya Sushruta* has paid due attention to this fact and observed that all the bones do not show similar type of effect due to trauma. As we already know that *Acharya* have particularly described the types of fractures occurring in each type of bone ^[13] mentioned as below-

1. *Tarunasthi – Namayante*
2. *Nalakasthi - Bhajayante*
3. *Kapalasthi - Vibhidhyante*
4. *Ruchkasthi – Sphutayante*
5. *Valayasthi – Sphutayante*

Grammatical Analysis

On profound analysis on literal basis of the words denoted as fracture types, a clear picture can be drawn on relation of specific fracture in the specific type of bone. Firstly let us dissect word on basis of *Dhatu Pada* and its meaning as per *Panini Vayakarana*. *Dhatu Pada* is root word of any word from which it has evolved. So, the basic meaning of each word can be best understood only when we know the *Dhatu Pada* of it. For instance the ***Dhatu Pada*** ^[14] of fracture related terms which are as follows -

1. *Tarunasthi – Namayante- Nama Prativatve Sabde Ca.*
2. *Nalakasthi – Bhajayante- Bhanjo Amardane / Bhujo Kautlye.*
3. *Kapalasthi – Vibhidhyante- Vidha Vidhane.*
4. *Ruchkasthi – Sphutayante- Sputa Vikasane / Sputa Bhedene.*
5. *Valayasthi – Sphutayante- Sputa Vikasane / Sputa Bhedene.*

The literal meaning of these ***Dhatu Pada*** is as follows ^[15] -

1. *Nama Prativatve Sabde Ca-* to bend, tear, destroy by pulling down.
2. *Bhanjo Amardane / Bhujo Kautlye-* shatter, break into pieces, breach.
3. *Vidha Vidhane-* perforating, tearing, fissure.
4. *Sputa Vikasane / Sputa Bhedene-* to burst, split, cracked.

By now we are well versed with *Dhatu Pada* and their meaning of each type of *Asthi* described in *Samhita*. Now the picture is better visualized as bone, its fracture and what does happen in fracture is much clear. We can now easily compare the type of fracture in particular bone as per modern anatomy, with our

classical description and find the similarity or variability. This can be better understood by the help of tables demonstrated below-

(Here we will consider only four types of fracture as teeth fracture is totally other branch and out of purview of this work).

Tables No. 2 Asthi Prakara; it's Dhatu Pada (root word) and their Meanings

Type of bone	Definition ^[16]	Type of Bhagna	Sandhi	Dhatupada	Meaning of Dhatupada
Taruna	Yaani Ghan Ta N Prapnuvanti Taani Tarunasthi	Namayante	Nme Ante	Nam	Nama Prativatve Sabde Ca
Kapala	Km Naam Shirah Tm Palyati Iti Kapala	Vibhidhyante	Vibhidi Ante	Vidh, Bhid	Vidha Vidhane.
Valaya	Vartulakarani Vartula Ardhavartula Sadryasani	Sphutayante	Sphut Ante	Sphut	Sputa Vikasane / Sputa Bhedene.
Nalaka	Nal Evpratishati, Nalakam Nalakararak Asthividh Yet Iti	Bhajayante	Bhaji Ante	Bhanj, Bhuj	Bhanjo Amardane / Bhujo Kautlye.

Table No. 3 Comparison of Classical Word Meanings of Asthi Bhagna & Type of Fractures

Asthi Prakara	Bhagna	Meaning of Bhagna ^[17]	Bone example as per modern	Common fracture ^[18]	Word meaning/ meaning of fracture ^[19]
Taruna	Namayante	To bow, to bend, curve.	Cartilaginous or bones of child(which are not fully ossified)	Green Stick Fracture	bone bends and breaks
Valaya	Sphutayante	Burst, split, cracked.	Ribs	break in the rib (detach)	Separation, cracking

<i>Kapala</i>	<i>Vibhidhyante</i>	Fissure, gap, cleaving.	Flat bones like Skull bones, hip bone, scapula	Linear, Depressed, Diastatic, Basilar	widen the suture, displaced inward, transverse break in the full thickness of the skull
<i>Nalaka</i>	<i>Bhajayante</i>	Shatter, break to pieces.	Various Long Bones like Femur, Humerus etc.	Transverse, Oblique, Spiral, Comminuted.	perpendicular to the long axis, at an angle, bone fragments scatter

It is clearly visualized that our *Acharaya* had given principle of *Asthi Bhagna* and *Asthi Prakara* on clinical basis as is proved here merely by meanings of root word on basis of classical grammar. This means that the bones which tend to bend or curve can be a type of *Tarunaasthi*, bones in which linear fractures or fissure is commonest type of fracture can be a type of *Kapalasthi*, bones which commonly breaks into pieces or detaches (having semi circular shape) from its attachment can be a type of *Valayaasthi* and bones in which fracture are mainly perpendicular to axis, transverse to axis or at angle can be a type of *Nalakaasthi*. This can be easily understood in below tabulated form-

Table No. 4-Showing the relation of *Asthi Prakara* and commonest type of fracture in them

S.No.	Commonest Type of Fracture	Common Meaning	<i>Asthi Prakara</i>
1	Green Stick Fracture	bone bends and breaks	<i>Taruna</i>
2	break in the rib (detach)	Separation, cracking	<i>Valaya</i>
3	Linear, Depressed, Diastatic, Basilar	widen the suture, displaced inward, transverse break in the full thickness of the skull	<i>Kapala</i>
4	Transverse, Oblique, Spiral, Comminuted.	perpendicular to the long axis, at an angle, bone fragments scatter	<i>Nalaka</i>

Conclusion

Susruta aptly called as "The father of Surgery" can easily be also named as "The father of applied anatomy", as he not only describes the structural anatomy but also have given their applied usefulness. After

validation of we can say that Classification of *Asthi* is specifically given in accordance to type of *Bhagna* (fracture) occurring in them; depicting the clinical orientation of our sages. The accuracy of principles both clinically and literally, can be verified. Each principle is accountable and it is to us to elaborate and understand it under present circumstances. We can say that knowledge of classical grammar is of extreme importance to bring out real meaning out of *Sutras* of classical text, thus making our principles more acceptable to new era and to take their maximum utilization in serving the nation.

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