



INTERPRETING THE TRANSITION IN A DHATU (STRUCTURAL UNIT OF BODY) IN DISEASE PATHOGENESIS.

Ayurveda

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ABSTRACT

In conceptual and practical aspects of Ayurveda, the deranged state of Doṣa (the vitiating entity) is exhibited as disease. Doṣa can manifest themselves through platform of Dhatu (structural unit of body). Body's vital capability depends on qualitative & quantitative parameters of Dhatu. In Ayurveda the pathogenesis is an imbedded blend of Tridosha (Vata, Pitta, Kapha) and Dushya (7 Dhatu, 3 Mala. Dhatu exploitation by Dosha is a critical aspect which is assessed to be leading the disease pathogenesis as well as prognosis. The Dosha Anusarpan (journey through 3 major pathways of disease) depends on Vata Dosha and Rakta Dhatu (Blood). Acknowledged by Sushrutacharya as "Prasara" (Spreading) of Doshas. Charakacharya also considers Rakta acting correspondingly to Vata Dosha for Prasara. Hence role of Rakta Dhatu in diseases, is dormant still special and needs to be clarified. Thus, it's useful to acknowledge the importance of Dhatu with its derangement patterns in diseases to understand disease onset and progression even prognosis in better way.

KEYWORDS

Dhatu, Rakta

INTRODUCTION

With appreciation of evidence based medicine in today's era, revitalization is essential through research, in fundamental and applied concepts of Ayurveda. The human body, according to Ayurveda, is a confluence of Dosha, and Dushya (sufferer) that are the Dhatu, and Mala. Their intimate relation sustains even in abnormal stages.

The Dhatu represents strength and immunity. Though Dosha initiates onset of pathogenesis c/a as "Karta"-doer. Still, for expressing themselves they unavoidably need the medium termed as "Karma". The combination of Nidana (etiological factors), disarranged Dosha and Dushya in a precise framework, diversifies the disease pathogenesis. It gives rise to different forms of disease. Being the pillars of body, nourished Dhatus give strength; maintain our health and immunity. Dhatus of weak quality are disease prone. The individual's disease resistance depends on his strength. As said by Suśrutacharya, strength is the supreme "Tejas" resulted from proper transformation of Dhatus.

Aim –

To interpret the transition in a Dhatu in disease pathogenesis.

Methodology -

The pathogenesis process comprises of two basic events as described by Charakacharya.

A. "Yatha Dushtena Doshena" (यथादुष्टेणदोषेण) -Nidana leads the Dosha vitiation & triggers disease pathogenesis, which is responsible for Dhatu weakening.

B. "Yathacha Anuvisarpita" (यथाचानुविसर्पितः) Doshanusarpan, through Rogamargas- In this process Rakta Dhatu plays has a major role with Vata. Each Dhatu has its typical embedded structural and functional qualities. Dhaturansformation during pathogenesis, brings some disturbances in normal constitution of Dhatu reflecting specific characters. Ex-Grāmyahara causes Dhatu Shaithilya, Kleda.

Principles Working Behind Dosha Vitiation-

This process can be evaluated through Ayurvedic principles based on Dosha Gunas (properties). This Dhatu abnormality is referred as Dhatudushti and is represented by various Dhatu Awastha (abnormal Dhatu transition stages). These Awasthas are found at various stages of

diseases and if acknowledged and treated in right time can channelize a disease prognosis in positive way.

Dhatu Transition (awasthas) In Texts –

- Kshaya -Lessening
- Vriddhi -Increase
- Dushti. -Abnormality-can be explored from the following terms found in texts (Asutkar, 2010). Ex-

Raktapitta-Saptadhatu- Swinnatwa (perspiration).

Kushtha-Twak, Rakta, Mamsa, Lasika, Siraa –Shaithilya (to let pass)°.

Visarpa-Twak, Rakta, Mamsa, Lasika-Klinnatva (undue moisture), Shirnatva (Perishable).

- **Principal of Amshamshakalpana** (Action of Dosha properties on Dhatu)

Table-1°

Dosha	Amshamshakalpana	Dhatu	Deranged transformation stage of Dhatu due to Action of Dosha Gunas (Awasthas)
Vata	Ruksha, Cala, Sukshma, Laghu	Stanya, Rakta, Twak, Mamsa	Phenilatva (froathy) Tanutva (Emaciation) Shosha (decimation)
Pitta	Ushna, Drava, Snigdha, / + Tikshhna	Rasa, Rakta, Mamsa	Klinnatva. Paka, (Ripening), Kotha. (Gangrene)
Kapha	Guru, Manda, Sthira	Rakta, Mamsa	Grathitava, (Knotted) Ghana (Copious)
Pitta, Kapha	Drava, Snigdha, + Ushna	Maamsa, Twak, Rakta	Saithilya, Abaddha
Vata Pitta	Ruksha, Khara, Sukshma + Ushna, / + Tikshhna, Laghu, Sara	Maamsa, Twak	Shirnatva, Shatana (fall)

Exploring few Awasthas -Phenilatva, Tanutva, Shosha

These Awasthas are found in Stanya, Rakta, Twak and Mamsa Dhatus. Which is evaluated to be a resultant of the specific actions Ruksha, Chala, Sukshma, Laghu Amshas of Vata Dosha on Dhatus.

Ruksha(Dry) acts by its –Rukshana(drying), Shoshakara(absorbing) actions. Laghu Guna (Lightness) does Balanaashana(weakening), Karshana(emaciating) actions and Vayu + Agni dominant Mahabhutas. Chala Guna(motility) acts by its Prerana (triggering) and Vayu Mahabhautas. Sukshma Guna (minuteness) acts by its Srotovivarana (traversing the channels) and action and Vayu + Teja + Akaasha Mahabhautas.

Ruksha, Vaishadya, Laaghava, Sukshma actions of Vayu adversely act on the Upakledana (moistening), Maardava (softening) actions in a Jaliya Dhatu, as well as on Gaurava (heaviness), Dhaarana(supporting), Upacaya(Amassing) etc actions of Paarthiva Dhatu. Thus, as a combined effect, the Drava (liquid) and also Ghana (solid) Dhatus get affected adversely. As a result, the Stanya, Rakta, Twak and Mamsa Dhatus acquire the transformed states Awasthas termed as Phenilatva (froathyness), Tanutva (Emaciation), Shosha (dedication).

• Successive Tracks Of Progression.

By knowing the factors involved in pathogenesis, sometimes the successive Awasthas, that can be developed in a Dhatu can be predictable, if the cause continues contributing. They are found to have affinity to proceed towards definite tracks of progression. These are readily quoted in Charak Samhita Nidana Sthana as 3 tracks of progression - Agneya (towards warmth- can be wet or dry), Vayaviya (dry-cold), Saumya (wet-unctuous-cold).

Ex- Awasthas found successively in Vatavyadhi- with culprit Amshamshakalpana. This proforma can be assumed as a general manner of successive occurrence of vitiated Dhatu Awasthas:

Table-2

Sr. No	Successive Dhatu transition stages	Added Amshamshakalpana leading Succession of Dhatu Transformation
I)	Rukshatva (Dryness)	- Ruksha Guna.
	Kharatva (Extreme dryness)	- Ruksha + Khara
	Parushatva (Desiccation)	- Ruksha + Khara (+++)
	Shoshana (Atropied due to drying)	- Ruksha++ Khara+ Ushna
	Sankocana (Stiffening / Shrinking)	- Ruksha+++Khara+++Kathina (Hardened)

• Ashrayashrayibhava- (Substrate & Substratum relation)-

The relation between Dosha Dushyas is that of substrate and substratum (Adhaaradehya / Ashrayashrayi). Ex- Asthi Dhatu – Vata, Sweda and Rakta -Pitta, Rasa, Maamsa, Meda, Majjaa, Sukra -Kapha. Any change in substrate reflects on substratum in some fashion i.e., increase in Adheya invariably causes increase of Adhaara, and vice versa the decrease. There is exception of this relation for Asthi Dhatu and Vata Dosha. The relation is pacified prominently by Rakta Dhatu and is more prone to Pitta vitiated conditions. It must be noted that 50% of the abnormal Awasthas in Rakta are Pitta Guna induced. Ex- Paka, Vidaaha (incomplete maturity), Swinnatva, Utsanna (Elevated), Udrikta (abundant), Ulbana (predominant) etc.

• The concept of Anusarpan (G. Asutkar, 2017)-

The Rakta Dhatu acts as the basic nutritional currency of all other Dhatus. Body's strength, complexion happiness and wellbeing depend on Rakta and it should be protected highly. Though Dosha spread and trigger disease pathogenesis, where Vata leads the movement, still Acharyas recognize Rakta, amongst the 7 Dhatus, as an equally potent factor, for pathogenesis execution. Sushrutacharya has accepted DoshaPrasara as one of the Shatkriyakala (6 stages of Dosha manifestation). Among the 15 ways of Doshaprasara, 8 ways are with Rakta. As Rakta= Agni+ JalaMahabhuta/elements-capable of stimulating and travelling). Charakacharya accepts that Dravatva (Liquidity) and Saratva (stimulating) qualities of Rakta, are the key factors that act correspondingly to Vata in execution of a disease pathogenesis. Because of this vitiated Rakta carries the foundation of various pathogenesis.

Awasthas of Rakta Dhatu found in diseases, acting as foundation for resultant successive Mamsa Dhatu Awasthas in that disease-^{28,29,30,31,32}

These successive Awasthas occurring in one or more Dhatus, from initial to final stages of disease, have tendency to lead a Dhatu towards deterioration. Also, the disease prognosis becomes bad due to it.

Table-3

Disease	Rakta Awasthas	Resultant Mamsa Awasthas
Kushtha, Visarpa	Swinna, Shaithilya, Klinna, Puti (Paka)	Saithilya, Klinnatva, Paka, Kotha Shirna, Shaatana

DISCUSSION

Tridosha is a pivotal concept on which the entire corpus of Ayurvedic theory and practice is built. They cause some structural or functional disturbances in Dhatus. From all the reviewed references from Samhita Granthas it can be evaluated that the disease pathogenesis process depends on-

- How the Dosha Dushti happens (यथादुष्टेणदोषेण) i.e. cause leads the Dosha Dushti & activates disease pathogenesis.
- Second is Prasar / Anusarpan through the Bahya, Madhyama and Abhyantar Rogamargas. Where Rakta Dhatu plays major role with Vata Dosha. (यथाचानुविसर्पित). During the process parallelly Dhatu Daurbalya (weakening of Dhatu) occurs. resulting in vitiated Awasthas that exhibit specific characters are found at various stages of disease.

Timely attending the Dhatu Awasthas allows correction in them during early stages of disease. The terms generally used for vitiated Dhatu Awasthas are Kshaya, Vriddhi and Dushti. The Dushti Awasthas are explored in-between the descriptions of Vyadhis by Acharyas. Exploring the Ayurvedic principles working behind development of Dhatu Awasthas prominently focuses on "Amshamshakalpana", "Ashraya Ashrayi Bhava", "Panchabhautik constitution of Dhatu as well and "the tendency to progress in specific manner, termed as the tracks of progression" in this study.

The Amshamshakalpana is action of-properties of Dosha, on Dhatu, in a typical manner through the permutations & combination of properties i.e. the Gurvadi Gunas of one or more Dosha). It has been explained in the treatises that, just as the fire is able to dry up the water in a vessel due to its heat, the morbid Dosha destroy the Dushyas by their Gurvadi Gunas (Asutkar, 2010). This study explores that Dhatu Awastha can develop by action of Gunas of single Dosha or multidosha. Ashrayashrayibhava concept is pacified prominently in case of Rakta Dhatu, being the substrate of Pitta is more prone to Dhatu Awasthas due to Pitta. Panchamahabhautikatva states the proneness of a Dhatu towards a particular Awastha. Thus Phenila, Picchilla Awasthas are only found in Drava Dhatus. Shatana, Daarana is separation of a portion of Dhatu structure which requires Ghana, Sthira, Sthoola Dhatu like Mamsa, Siraa, Twak etc. - Askanditatva in Rakta it's particularly due to Shitoshna, Sara, Drava etc. Gunas in Rakta Dhatu, Saumyaagneya nature, (Jala+Agni) constitution. Concept of Dhatu Awastha Progression tracks says that by knowing the above stated principles, sometimes the successive Awasthas are predictable. They go through a particular sequence while transforming into next Awastha.

Anusarpan (spreading) highlights the peculiarities of Rakta role by Sushrutacharya and additional Vata role by Charakacharya in bearing the foundation of various pathogenesis. This demands addition of Rakta focused treatment in a disease if disease is not getting cured with its defined treatment. Rakta can lead the path of pathogenesis as seen from evidence of Rakta properties in successively deteriorating Awasthas.⁽⁶⁾ Different Awasthas related to each other and tending towards deterioration are found successively as the Samprapti progresses.

Thus, just Dosha Pratyani Cikitsa implementation will not yield results in all stages of a disease. By interpreting the underlying Dhatu transition in disease pathogenesis, specificity in treatment can be achieved.

CONCLUSION-

- Steps in Pathogenesis bring disturbances in normal Dhatu constitution, referred as "Dhatu transition or vitiated Dhatu Awastha".
- Transition in Dhatu occurs during stages of disease pathogenesis can be logically explored on basis of Principles of Ayurved.
- One or more Dosha bring different transitions in a Dhatu by Amśamśakalpana.
- Transitions in Dhatu proceed towards tracks of progression. Agneya, Vayaviya, Saumya.
- Successive transitions/ Awastha can lead a Dhatu towards deterioration.

6. The proneness of a Dhatu towards a particular Awastha depends on the Mahabhautik constitution of that Dhatu and Ashrayashrayibhava (relation of Substrate and Substratum (of Dosha and Dhatu)
7. Vitiated Rakta Dhatu acts significantly in execution of Prasara and carries the foundation of various pathogenesis.

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