

Chapter 2: The significance of Prakriti analysis in formulating P4 strategy based Sūtikā protocol

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Abstract

Sūtikā Paricharyā is one of the unique scientific interventions that ensure the complete reaffirmation of physical, mental and spiritual health status of the mother, addressing all the aspects of vulnerable vitiation of Dōshās. The current practices involve irrational use of over the counter medicines without proper guidance in Pathya, which is wholesome regimen in diet, and medicine, leading to unintended results making the system of Āyurveda in blame . This is contrary to the Ayurvedic principle of individualised treatment. This chapter signifies the role of Prakriti in formulating the protocol. This identifies with P4 Strategy in Personalised Medicine i.e., Preventive, Predictive, Personalized and Participatory . This will make the Sūtikā Charya a scientific protocol based and Personalized System that will be authorized by a trained Vaidya.

Keywords - Prakriti, post-natal, Sūtikā, regimen, Āyurveda

1. Introduction

Ayurveda has clear guidelines for all the phases of a woman to be followed for prevention and protection from potential harms that can occur from the demanding challenges that she has to face during menarche, menstruation, conception, pregnancy, delivery and menopause. These are comprehensive, with diet and lifestyle to be observed in such stages with grace- Paricharya and have to be followed under the guidance of a Vaidya, who will do the assessment of the avastha with the pareekshanaupaya that make the paricharya to be specific for an individual as mentioned in classics.

The Current Practice of Sūtikā Paricharyā is more traditional and generalised in India, with the population resorting to Over the Counter prescriptions that is available in Ayurvedic medical stores and the ‘traditional recipes’. These, when used, can lead to the unintended results as the infamous critics on Āyurveda - as irrational and harming. This is very different from Scientific Practice of Customised Protocols in Āyurveda based on Dasha Vidha Pareeksha. Let us first analyse the Sūtikā Charya illustrated in Ayurvedic literature. This will be followed by the need for customized evaluation that includes the consideration of factor ‘Prakriti’.

The aim of this chapter is to propose a comprehensive protocol as a first step towards the personalized medicine, completely changing the present therapeutic paradigm of over the counter and traditional practices to “matching the right dose to the right, specific genetic signature of the patient and at the right time” with highest precision in assessment of Prakriti and Vikriti. More effective and successful integration of Dasha vidhapareeksha (**Trikamji.Y, 2004**), in clinical practice should address

1. Personalize challenges regarding bioethics- patient centric- Autonomy of Sūtikā is regarded
2. Predict intrinsic and extrinsic factors- based on Pareeksha.
3. Preventative measures such as nutritional counseling, lifestyle modifications, and targeted screening.
4. Participation of Sūtikā for better health by educating her on wholesome diet and lifestyle

On closer observation, we can recognize the P4 strategy of Medicine is being advocated by Ayurvedic principles of Sūtikācharya.

1.1. P4 strategy of Personalized Medicine (Boffetta, P., & Collatuzzo, G. (2022))

Personalized medicine represents a transformative shift in healthcare, focusing on delivering treatments and care plans that are specifically designed for each individual. This approach takes into account a person's distinct genetic makeup, environmental influences, and lifestyle choices, offering a more precise and effective way to understand and manage diseases. Central to this model are the four foundational principles—Predictive, Preventive, Personalized, and Participatory. Together, these elements aim to boost the overall quality of care, promote active patient involvement in health-related decisions, and support prevention strategies that are uniquely suited to each person.

P4 medicine is defined as a “new generation of services designed for people who want to take charge of their health and well-being”. When the dashavidhapareeksha is being observed, a Vaidya can help to understand and educate the Sutika about her condition, how she is unique and what is wholesome for her and what not. Prakriti is such a unique concept from dashavidhapareeksha that Ayurveda Vaidya use to make pratipurusha chikitsa or individualised or personal care a reality.

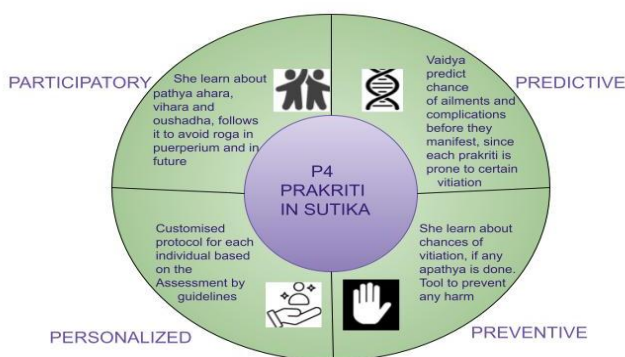


Fig.1 - Depiction of P4 Strategy of Prakriti Based Individualization of Sutika Protocol by the author

2. Sūtikā

The word Sūtikā is used to describe the postnatal woman and it is derived from the basic Sanskrit root Sū (सू)- (sūte, sūyate, sūta) to bring forth, produce, beget, and yield. (Monier-Williams, M. (1899). A woman who has just given birth to a child followed by expulsion of the placenta is called as Sūtikā Tiwari, P. V. (2013).

Clinical changes associated with puerperium

The postpartum period refers to the time after childbirth during which the mother's body undergoes physiological and anatomical adjustments to return to its pre-pregnancy condition. Also known as, the puerperium, this phase begins immediately after the placenta is expelled and continues until the body has fully recovered. Clinically, the postpartum period is commonly categorized into three stages: the acute phase, which encompasses the first 24 hours post-delivery; the early phase, lasting up to seven days; and the late phase, which can extend from six weeks to as long as six months, depending on individual recovery (Chauhan, & Tadi, 2022).

SūtikāKāla: Table 1 - Sutika Kala by Acharyas

SAMHITĀ	SŪTIKĀ KĀLA
Charaka Samhita	Not Specified
Sushruta Samhita, Ashtanga Samgraha, Ashtanga Hrudaya	Sa ardha masa (1 ½ month) or until next Ārtavadarshan (punarartava darshan)
Yogaratinakara, Bhavapraksha	Sa ardha masa (1 ½ month) or until next Ārtavadarshan (punarartava darshan)
Kāshyapa Samhita	6 months (rudhiraādi dhatu in prepregnancy state)

In relation to Mūḍha Garbha (obstructed labor), a duration of four months is traditionally considered the SūtikāKāla- the postpartum period necessary for the resolution of associated complications and for restoring balance among the aggravated Doshas.

2.1 Why Sūtikā Charya is significant? (Sharma, S. (Ed.). (2006)

- After delivery, the nourishment given to the mother is distributed for production of stanya, replenishment of dhātus and formation of menstrual blood, Ārtava.
- The woman undergoes the stages of extreme challenges in the form of foetal development and labour pain, which culminate in shithilatha of dhatu, kleda and raktanisruti and shareerashūnyata.

With the proper Paricharya, she can regain her pre-pregnancy state with physical and mental revitalization.

2.3. a. Sūtikā Paricharya by Charaka Samhita (Table 2) Trikamji, Y. (Ed.) (2001)

Time Period	Ahara	Vihara	Oushadha
5 to 7 days routine	Panchakōlasidhasnigdha, dravayavagu	Abhyanga with sarpi /taila Parisheka with ushnajalaUdara veshtana	Panchakōlasidha Sneha
After 7 days	Āpyayayētkramena - peya, vilepi, yūsha, rasa, anna krama - bruhmana with jeevanīya, vatahara, madhura rasa	Abhyanga, Utsādana, Parisheka and avagāhana With vatahara, jeevaniya dravya	Bruhmana, jeevana, Vatahara, madhura rasa
10th day	Nāmakarana aftersnāna with sarvagandhaoushadha, lōdhra and sarshapa and shuchivastraparidhāna		

2.3. b Sūtikā Paricharya by Sushruta (Table 3) Trikamji, Y.(Ed.) (2005)

Time Period	Āhara	Vihāra	Oushadha
2 to 3 days	Vātaharaoushadhasidhapeya Ushna Gudōdaka	Balātaila abhyanga Parisheka with VātaharaBhadradārvadi kwātha	Bhadradārvadivāta hara kwāthapāna Panchakōlasidhagudōka for rakta dosha nirharana
4 th to 7 th day	Sneha Yavagu/Ksheera YavaguPāna with Vidārigandhādi Gana	Balātaila- abhyanga Parisheka - VātaharaBhadradārvadi	Vidarigandhādi as Sneha Yavagu
From 8th day	JāngalMamsa Rasa - Yava, Kola, Kulathasidha with Cooked Shāli rice	Prabhootaushnajala For Parisheka Avoid krodha, ayasa, maithuna	

2.3.c. SūtikāParicharya by Ashtānga Samgraha (Table 4) (Sharma, S. (Ed.). (2006).

Time Period	Āhara	Vihāra	Oushadha
3/ 5/ 7 days	KsheeraYavāguPāna - Vidāryaadi Gana Siddha after jeernasneha	Balā Taila Abhyanga Sthanika Udara Abhyanga - Ghrita/Taila (yamaka) Udara veshtana Parisheka with ushnodaka	Sneha Yogya- Sneha Pāna with Panchakōla, yavāni, upakunchika with Saindhava Sneha Ayogya- Vātahara/Laghu Pancha Moola Kwātha
7 to 12 days	Yava, kola, kulathayusha, laghu anna	Balā Taila Abhyanga Sthānika - Udara Abhyanga - Ghrita/Taila (yamaka) Udara veshtana Parisheka with ushnodaka	Sneha Yogya- Sneha Pāna with Panchakōla, yavani, upakunchika with Saindhava Sneha Ayogya- Vātahara/Laghu PanchamoolaKwatha
After 12 days	Jāngalamamsa rasa	Bruhmanīya, jeevaniya,vātahara, madhura, hrdya - for Abhyanga, parisheka, avagaha	

2.3. d. Sutika Paricharya by Ashtanga Hrudaya (Sastri, H. S. (Ed.) (2018).

Same description as that of Ashtanga Samgraha but ushnagudodaka has been added. Arunadatta has explained that if mamsa is used before 12 days, it can cause affliction of graha.

2.3. e. Sūtikā Paricharya by Kāshyapa Samhita (Table 5) (Sharma, H. (2005))

Time Period	Ahara	Vihara	Oushadha
3 to 5 days	Manda Pāna Hita Bhojana	Rakshoghna Dravya AshwasanaPristha Samvahana in Nyubj Shayana Udara PidanaVesthana Ushna Bala Taila ApuritaCharmasana Yoni Swedana with priyangu Ushnodaka Snana Vishranti Dhupana- Kustha, Guggulu, Agaruru mixed with Ghrita.	Sneha Pana With mandaanupana
5 to 7 days	Sneha YavaguPippali, Nagara Yukta Yavagu - Lavana Rahita		
7 to 12 days	Sneha yavagu with lavana		
Up to 1 month	Kulatha Yusha JangalaMamsa Rasa with Sneha Lavana and Amla GhritaBharjita Shaka		

2.3.f. Sutika Charya as per Harita Samhita (Table 6) (Shastri, R. (1985))

Time Period	Ahara	Vihara	Oushadha
1 to 2 days	Upavasa on first day Ushnakulathayus	Vaginal filling with oil Abhyanga Parisheka	Lodhra, arjuna, kadam ba, devadaru, beejakakwatha Guda, nagara, hareetaki On second day
3rd day	Panchkolayavagu		
4th day	Chatur Jataka yavagu		
5th day to 15th day	shali or shashtika anna		

3. Prakriti and its Significance in Sutika Protocol

3.1. Prakriti

The term Prakriti is derived from two Sanskrit words ‘Pra’ and ‘Kri’. ‘Pra’ means ‘First’ and ‘Kri’ means ‘Creation’. Therefore, Prakriti is termed as the ‘first creation’. Prakriti signifies the genetic makeup that is revealed to Vaidya through Darshana and Prashna Pareeksha. It expresses a unique trait of an individual that is defined by specific and permanent composition of Dosha right from birth.

3.2. Determining factors of Prakriti

People from every ethnic background can be categorized into one of seven Prakriti types. This classification is shaped by a combination of genetic inheritance and environmental factors.

[Cha. Sa. Vimana Sthana 8/95]

- Shukra-shōnitaPrakriti (sperm and ovum)
- Kāla-Prakriti (time of conception or season)
- Garbhāshaya Prakriti (health status of uterus)
- Māturahār-vihar Prakriti (diet and lifestyle habits of mother)
- PanchamahābhutaVikāra Prakriti

The development of Prakriti is influenced by hereditary elements (such as contributions from the sperm and ovum) as well as non-genetic factors, including the condition of the womb, the timing of conception, the nutritional status, and the behavioral patterns of the mother during pregnancy.

3.3. Factors influencing the Prakriti

तत्रप्रकृतिर्जातिप्रसक्ताच,कुलप्रसक्ताच,देशानुपातिनीच,कालानुपातिनीचवयोऽनुपातिनीच,प्रत्यात्म
नियताचेति|जातिकुलदेशकालवयःप्रत्यात्मनियताहितेषांतेषांपुरुषाणांतेतेभावविशेषाभवन्ति||

[Cha. Sa. I. 1/5]

The inherent constitution of an individual is shaped by several factors including their social origin (Jāti), lineage or ethnicity (Kula), geographic location (Desha), temporal aspects such as season or era (Kala), age (Vaya), and unique personal habits and environment (Pratyātmaniyata). The diversity observed among individuals arises from variations in these elements- social background, ethnic roots, region of residence, seasonal influences, age, and lifestyle patterns.

तथापुनःसप्तप्रकृतयोजातिकुलदेशकालवयोबलप्रत्यात्मसंश्रयाः।दृश्यन्तेहिपुरुषाणांजात्यादिनियतास्ते
तेभावविशेषाः (A.S. Sha.8/17)

3.4. Significance of Prakriti Pariksha in Sutika

Prakriti assessment is one of the parikshaupaya for Vaidya in understanding the physiology and pathology in āthura and swastha. Even Though Ācharyas have not mentioned about it specifically, we have to apply the knowledge based on Tantra yukti. The tantra yukti that play the roles here are (Trikamji, Y. (Ed. (2001)

❖ Hetwartha refers to a statement made within a specific context that holds relevance beyond its original setting, implying that the reasoning can be applied to other similar situations as well. It essentially represents the broadening or extension of an argument.

❖ Arthapatti denotes a situation where the meaning of a sentence is not explicitly expressed, but can still be inferred or assumed through reasoning. It involves a process of deduction and rational justification based on what is implied.

❖ Ūhya is used when a researcher is expected to apply personal judgment or interpretative skill to grasp a deeper meaning from a text. It suggests that an insightful individual can perceive more than what is overtly stated.

3.5. Prakriti VichāRaSandarbha (Contexts of Prakriti Analysis)

❖ Pain Tolerance Level

The post partum pain though in itself is limiting, is seen tolerated at different levels in different individuals. This pain, when acute, is caused by uterine contractions, perineal pain or incisional pain, breast feeding, and the anatomical and physiological changes causing severe joint pains.

The acute condition, when not addressed, takes the form of Persistent Postpartum Pain or PPP, which lasts for more than 6 weeks after delivery. Along with the sluggish physical adaptation issues, psychosocial factors, that include lack of addressing with individual care and support leads to the chronicity and aftereffects like depression and hormone dysfunction.

A Vaidya can identify the Shāreerika and Mānasika Prakriti. There is a susceptibility to increased perception of pain or atirujā in raja -thamo pradhana and vāta, vātapaittika and paittika persons. This is because of rūksha, laghu, chalatva of vāyu dosha is susceptible to vitiate in their body by sūtikā avastā . In Pitta or Vāta Pitta, also, visra, sara, laghu, dravatvaguna is causing more susceptibility to pain.

❖ Vaginal Bleeding And Wound Healing

A Vaidya can easily organise the sūtikā charya in such a way that it can facilitate the bleeding phase and ensure that the dose of medicines that is advised in garbhāshaya shudhi and rōpana of vrana phase is regulated in such a way that katu rasa pradhāna dravya is not vitiating the pitta or vāta . Ex- In a pitta Prakriti sūtikā, the panchakōa and yavakshāra has to be used cautiously and in suitable sneha, to not aggravate the pitta causing bleeding and delayed wound healing. In kapha Prakriti, yavakshāra, of lavanaskanda can cause kledana and utklesha . In vāta Prakriti, the rūksha guna and katu rasa of panchakōla can aggravate pain, so this has to be carried in ghrita form to reduce bleeding.

❖ Lactation – Breastfeeding

Stanya is synthesised as upadhatu of rasa; the mother and child are connected with the eternal bond of feeding that signifies its role in Sūtikā charya . In Vāta, Pitta and Vāta Pitta Prakriti, the sūtikā charya chart should contain dudhika , shatavari, stanyajanana yoga like Vidā ryadi, which is Balya and stanyajanana while in kapha, and Kapha vāta Prakriti lashūna, moolaka, souveeraka, stanya shudhi karayogas like Vachāharidradi should be included. Krodha, shoka, avātsalya (resentment) are mentioned as the most important causes of decreased stanya production as per Sushruta. Vāgbhata mentions langhana (fasting) and āyasa (over-exertion) in addition. In Vāta, Pitta and Vāta pitta Prakriti, these nidana along with Katu rasa atiyoga can deplete stanya, causing distress. Again, kapha dushti can happen with madhura, amla, lavanaatiyoga and divāswapna in Kapha Prakriti. Stanya shōdhaka yogas like Vachā haridradi can rectify the kapha dosha, by a Vaidya who can understand the affliction for kapha vitiation in such individuals. Therefore, the emotional wellness can be educated and sūtikā can participate in pathya as per her Prakriti for the proper lactation.

Vāta, Pitta and Kapha Prakriti have krūra, mridu and madhyakoshta. This goes in line with vishama , teekshna and mandaagni . For āhara and Oushadhanirnaya , the knowledge of Agni and koshta in prākṛutaavastha is essential.

❖ Choice of Sneha

Ācharyas have mentioned about desha and gender based sneha use. An intelligent Vaidya should aptly use ghrita, which is vata pitta shamana in Vāta , Pitta and Vata-Pitta Prakriti. The Panchakola, which is shūlaghna, deepana and

garbhashaya shudhikara, but ushna and teekshna, should be in the medium of ghrita, which are balya, deepana and vata-pitta shamana. In Kaphaja, Kapha-Vātaja Prakriti, the sneha should be medicated taila , with Dashamoola and panchakola , or vachaharidrādigana.

❖ Choice in Pathya - Wholesome Nutrition

The nutrition is divided between mother and child , which makes it most significant. The future prospects of health and disease is determined for both through adequate and wholesome nutrition . While Shāstika, raktashāli, godhūma, mudga are good for Vāta and vāta -pitta; yava, kulatha, masooraka, good for Kapha Prakriti. Lashūna, mūlaka, shigru, dadhi are good in vata and vata-kaphaja, while not suited for Pitta Prakriti. While Dādima and Drāksha is wholesome for all , some like kadali is good for Vāta Prakriti but can cause kapha utklesha and jambu is vāta vridhikara, but kapha shamana, thereby good in kapha Prakriti.

❖ Choice in Vyayama– Exercise

Vyayama is contraindicated in sūtikā . This can be understood as the resting period with mild movements and avoiding intense workouts. Here also, the Prakriti of the patient has to be considered before advising . Vāta Prakriti individuals should rest and do light walking, while pitta Prakriti with moderate and kapha Prakriti should opt for intense workouts. The bleeding phase should be avoided for all Prakriti for any type of exercise. Once the bleeding stops - mild walking, gentle core exercises and pelvic floor exercises should be started in uncomplicated delivery; while in complicated ones, any form of exercise should start after 3 months.

❖ Revitalization of Mind - Coping with Depression

Sūtikacharya not only replenishes the body, but also the psychological wellbeing is assured. By individualization of the care and educating sūtika , she is participating in the process with more clarity about what is wholesome and what is not. By self care and the feeling of being cared for , the āshvasana and dhairya in the form of counselling, snehapana and bāhyaupachāra , the bala of satva is also replenished. Vata Prakriti and Pitta Prakriti have more of shoka and krodha susceptibility and therefore the modulation with yoga , dhāra and meditation techniques can help overcome the threat of depression.

❖ Assessment of Prognosis in Sūtikā Rōga

Severe illness tends to occur when the same type of doṣa is predominant in both a person's constitution (Prakriti) and in the disease process (samprāpti). People whose inherent nature is dominated by vāta, pitta, or kapha are more prone to illnesses where the corresponding doṣa is also predominant. This knowledge is vital for prognosis.

4. The P4 Strategy in Sutika

- Predictive- in prediction and identification of differences in pain , prognosis, wound healing , stanyajanana, chance of depression , choice of medicine , medium of medicine, anupāna and dose in an individualized way.
- Preventive- Prevent all nidana that can vitiate each dosha Prakriti, susceptible for dynamic change
- Personalised- This allows the individualized care with minute factorization of each nidāna
- Participatory- Educate the patient about difference in perception of pain, wound healing and bleeding, need for following pathya not disturbing her body constitution , dose and anupāna of suitable medicine in suitable medium, vyāyama, nidra, lactation and stanyadosha.

5. Conclusion

P4 Model, ie, Prediction, Prevention, Personalized and Participatory steps in Personalized Medicine are emerging in modern medicine for making the health care system more comprehensive. Actually, the path followed by Āyurveda from ages , is nothing but purusham-purusham-veekshya i.e. personalized care. Dasha vidhapareeksha for each individual is compulsory, that makes it customised. The Prakriti-based individualized health maintenance system of Ayurveda encapsulates the concept of new personalized medicine.

6. Reference

- Boffetta, P., & Collatuzzo, G. (2022). Application of P4 (Predictive, Preventive, Personalized, Participatory) approach to occupational medicine. *Med Lav*, 113(1), e2022009. <https://doi.org/10.23749/mdl.v113i1.12622>
- Monier-Williams, M. (1899). A Sanskrit-English dictionary: Etymologically and philologically arranged with special reference to cognate Indo-European languages. The Clarendon Press.
- Sastri, H. S. (Ed.). (2018). *AstangaHridayam of Vagbhata, Sharirasthana* (p. 376). ChaukhambaSurbharati Prakashan.
- Sharma, H. (2005). *Kashyapa Samhita* (10th ed., p. 306). Chaukhamba Sanskrit Sansthan.
- Sharma, S. (Ed.). (2006). *Ashtanga Samgraha of VriddhaVagbhata, Sharirasthana* (p. 295). Chaukhamba Sanskrit Series.
- Sharma, S. (Ed.). (2006). *Ashtanga Samgraha of VriddhaVagbhata, Sharirasthana*, chapter 3, verse 37 (1st ed., p. 295). Chaukhamba Sanskrit Series.
- Shastri, R. (1985). *Harita Samhita with Nirmala Hindi Commentary* (1st ed., p. 104). PrachyaPrakashana.
- Tiwari, P. V. (2013). *Kasyapasamhitha: Text with English translation* (Reprint ed., p. 576). ChaukhambaVisvabharati.
- Trikamji, Y. (Ed.). (2001). *Charaka Samhita of Agnivesha, with Deepika Commentary* (5th ed., p. 737). Chaukhambha Orientalia.
- Trikamji, Y. (Ed.). (2004). *Charaka Samhita by Agnivesha, Vimana Sthana*, chapter 8, verses 93-94 (1st ed., p. 27). Chowkhambha Sanskrit Series.
- Trikamji, Y. (Ed.). (2005). *Sushruta Samhita of Sushruta* (8th ed., p. 389). Chaukhambha Orientalia.
- Trikamji, Y. (Ed.). (2001). *Charaka Samhita of Agnivesha* (5th ed., p. 348). Chaukhambha Orientalia.
- Chauhan, G., & Tadi, P. (2022, November 14). Physiology, postpartum changes. In *StatPearls* [Internet]. StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK555904>