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Observational Survey Study on Association of Primary Dysmenorrhea with *Sharira Prakriti* (Body Constitution)

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Abstract

Background: Dysmenorrhea is one of the most common health issue. Reported prevalence of dysmenorrhea is 84% in young girls. Primary dysmenorrhea is correlated with *Udavartini yonivyapad* from Ayurveda. There are limitations for the management by Western medicine to this issue. Hence, there is a need of comprehensive and holistic approach. Ayurveda has termed this uniqueness of body as *Prakriti* (body constitution). Knowledge of *Prakriti* is very important to maintain health as well as for planning of the treatment in Ayurveda. The knowledge of the relationship between *Prakriti* (body constitution) with primary dysmenorrhea may be beneficial for the management of primary dysmenorrhea. **Objectives:** The aim of the study was to study the association of primary dysmenorrhea with *Sharira Prakriti* (body constitution). **Methods:** This was a exploratory observational clinical study by interview method. **Results:** Regarding *Sharira Prakriti* (body constitution), it has observed that the maximum subjects of *Vata*, *Vata-Pitta,* and *Vata-Kapha Prakriti*(s) were suffering from Grade 1 and Grade 2 type of pain of primary dysmenorrhea as well *Vata dosha* provoking food, incompatible food, and non-vegetarian food are responsible for *Vata* vitiation which was responsible for pain in primary dysmenorrhea. **Conclusions:** The present study has revealed that maximum subjects having *Sharira Prakriti* (body constitution) of *Vata* dominance and *Vata* associated *Prakriti* are suffering from pain in primary dysmenorrhea. It has also revealed that *Vata dosha* provoking food, opposite food, and non-vegetarian food does *Vata* vitiation which is responsible for pain in primary dysmenorrhea. Hence, knowledge of *Prakriti* (body constitution) is beneficial in the management of primary dysmenorrhea.

Keywords: Association of primary dysmenorrhea with *Sharira Prakriti*, Body constitution, Primary dysmenorrhea, *Sharira Prakriti*

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Introduction

It is estimated that prevalence of dysmenorrhea varies from 20% to 95%.[1,2] Dysmenorrhea was seen in majority of the young girls (84%). The variation of prevalence was due to a different diagnostic tool or different attitude toward menstruation. Similar high prevalence (67.2%) was reported by Sharma *et al*.[3] and Harlow and Park (71.6%).[4] A Cochrane systematic review of studies in developing countries reported prevalence of dysmenorrhea in 25–50% of adult women.[5] On the other hand, studies from the developed countries also reported a wide range of 60–73%.[6] Prevalence of dysmenorrhea was 70.2%.[7] Thus, there are higher prevalence evidences of primary dysmenorrhea reported by various papers, which explains us the severity of the problem. Due to higher prevalence rate, there is a necessity to find out the relation with *Sharira Prakriti* (body constitution) with primary dysmenorrhea.

Ayurveda is a science of life, which is originated in India and practiced from 5000 years. There is a two-fold approach of Ayurveda, such as maintenance of healthy condition and management of diseases.[8] Scholars of Ayurveda have clearly described gynecological disorders as *Yonivyapat*. Total 20 kinds of different gynecological disorders are recorded under *Yonivyapat*.[9] Out of those 20, *Udavarta yonivyapat* is closely resembles with dysmenorrhea.[10] Balance of *Tridosha* (*Vata, Pitta, and Kapha*) is necessary of human health.[11] The disordered *Vata* causes pain.[12] About dysmenorrhea, pain is observed in maximum cases. Grade 1 and Grade 2 types were observed in maximum percentage of population and primary dysmenorrhea affects social life.[6] Dysmenorrhea is of two types: (i) Primary dysmenorrhea refers to menstrual pain without pelvic pathology and (ii) secondary dysmenorrhea is defined as painful menses associated with an underlying pathology. Clinical features of primary dysmenorrhea are (i) onset shortly after menarche; (ii) usual duration of 48–72 h, often starts before or just after the menstrual flow; (iii) cramping or labor like pain; and (iv) often unremarkable pelvic examination findings.[13] *Udavartini yonivyapad* is characterized by painful menstruation.[14] According to the *Charaka*, *Rajas* is pushed in upward direction by the aggravated *Apana vayu* due to obstruction in its normal flow (*anuloma gati*) in *pakwashaya*, the chief site of *Apana vayu* being the *pakwashaya* (colon and pelvic organs).[15]

Each human has dissimilar size and shape. Furthermore, it has a different physiological and psychological characteristic, which makes everyone personalized. Ayurveda has termed body type or body constitution as *Prakriti*, which means body nature.[16] It has a genetic and acquired aspect. Ayurveda principally refers to *Prakriti* of human as *Sharira Prakriti* (body constitution), which is described on the basis of *Tridosha*, that is, *Vata*, *Pitta,* and *Kapha*. Knowledge

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of one's own *Prakriti* (constitution) can be helpful in maintenance of one's health by following appropriate life style, diet, and regimen suitable in the particular environmental condition.[17] As per Ayurveda, to know *Prakriti* is very important to maintain health as well as for planning of the treatment of any disease.[18] Constitutional type of an individual or prakriti is the basic clinical denominator in Ayurveda.[19] There must be relationship between *Sharira Prakriti* (body constitution) with primary dysmenorrhea. The knowledge of the relationship between *Prakriti* (body constitution) with primary dysmenorrhea may be beneficial for the management of primary dysmenorrhea.

Methods

The present study was carried out through a special research proforma through interview method. *Sharira Prakriti* (body constitution) was diagnosed by special questionnaire based on Ayurveda classical texts. Special research proforma collected the findings regarding dysmenorrhea such as grades of pain, body mass index (BMI) distribution, BMI distribution, common symptoms (tiredness, headache, giddiness, sleeplessness, increased sleep, feeling fullness in lower abdomen, back pain, tenderness of breasts, knee pain, swelling of legs, facial puffiness, and acne); gastrointestinal symptoms (loss of appetite, increased appetite, nausea, and vomiting); excretory symptoms (constipation, diarrhea, increased frequency of urination, and profuse sweating); psychological symptoms (depression, mood swings, irritability, inability to concentrate, and nervousness), and details of *Sharira Prakriti* (body constitution).

Study Design

This was a exploratory observational clinical study.

Area of Study

The present study population was from Pune and Pimpri-Chinchwad Municipal corporation area.

Sample Size

The sample size was 150.

Human Rights and Ethical Considerations

Ethical clearance was obtained from the Institutional Ethics Committee. The subjects will be chosen according to the criterion and they will be interviewed after their informed consent to participate in the study. The researcher approached each subject by giving an overview of the study, explained the procedures and reassured the subjects that their privacy would be protected, and that any obtained information would be strictly confidential.

Results

Results are recorded as per given tables:

Discussion

Dysmenorrhea (menstrual pain or painful periods) is one of the common problems experienced by many adolescent girls. There is a large impact on feminine community and occupational health due to it. Ayurveda has mentioned the symptoms of dysmenorrhea which is very close to *Udavarta Yonivyapad*. *Vata dosha* plays an important role in pain of dysmenorrhea. *Apana vata* is responsible for all excretory activities. *Artava* (menstrual blood) gets exhibited every month cyclically depends on the ability of normal *Apan vata*. Etiology of *Udavarta Yonivyapad* as per Ayurveda has quoted that vitiated *vata dosha* goes in the upward site; hence, there is pain during the menstruation; means the disordered *vata* causes pain.

Prakriti is closely related with every disease. This is observed from the study, there is a strong relationship of *Prakriti* with dysmenorrhea. *Vata dosha* increasing diet and behavior increases the pain. In dietary lifestyle, it was observed that bakery products, *vata dosha* provoking food, opposite food, non-vegetarian food, and excess water consumption are responsible for *Vata* vitiation which effects on menstrual cycle and cause dysmenorrhea. In Ayurveda, traditional dietary lifestyle is mentioned in detailed manner as well as it is elaborated as per seasonal regimen also. Nowadays, due to changed behavior and dietary lifestyle, we can observe more symptoms of dysmenorrhea.

Out of 150 subjects regarding this study [Table 1], maximum number (30.40%) was of *Vata-Pitta* and *Pitta-Kapha Prakriti*(s), and then 20.27% was of *Vata-Kapha*, 10.81% was of *Vata Prakriti*, 4.72% was of *Pitta Prakriti*, and 3.37% was of *Kapha Prakriti*.

Grade 2 type of pain was recorded in maximum number of subjects (60) and Grade 1 type of pain recorded in 40 subjects which were from *Vata* predominant *Prakriti* and *Vata* associated *Prakriti* [Table 2].

In regards to this study, normal BMI was of 49.33% subjects, mild thinness BMI was of 19.33% subjects, severe thinness BMI

Table 1: Percentage of *Sharira Prakriti* (body constitution)

Sharira Prakriti (Body constitution)	*No. of Girls*	*Percentage of Girls*
Vata Prakriti	16	10.81
Pitta Prakriti	7	4.72
Kapha Prakriti	5	3.37
Vata-Pitta Prakriti	45	30.40
Vata-Kapha Prakriti	32	20.27
Pitta-Kapha Prakriti	45	30.40

Table 2: Sharira Prakriti and grades[6] of pain

Sharira Prakriti	*Grade 0*[a]	*Grade 1*[b]	*Grade 2*[c]	*Grade 3*[d]	*Total*
Vata Prakriti	0	2	14	0	16
Pitta Prakriti	0	4	2	1	7
Kapha Prakriti	2	5	0	0	7
Vata-Pitta Prakriti	3	23	18	1	45
Vata-Kapha Prakriti	3	15	11	1	30
Pitta-Kapha Prakriti	7	18	17	3	45

[a]Grade 0: Menstruation is not painful and daily activities is unaffected, [b]Grade 1: Painful but seldom inhibits normal activity; analgesics are seldom required, mild pain, [c]Grade 2: Daily activities are affected; analgesics required and give sufficient relief so that absence from school is unusual, moderate pain, [d]Grade 3: Activities clearly inhibited, poor effect of analgesics, vegetative symptoms (headache, fatigue, vomiting, and diarrhea), severe pain

Table 3: BMI distribution

BMI Standard	*Range*	*No. of Girls*	*Percentage of Girls*
Severe Thinness	<16	23	15.33
Moderate Thinness	16–17	15	10
Mild Thinness	17–18.5	29	19.33
Normal	18.5–25	74	49.33
Overweight	25–30	7	4.66
Obese Class I	30–35	2	1.333

BMI: Body mass index

Table 4: BMI distribution according to Sharira Prakriti

Sharira Prakriti (Body constitution)	*Severe Thinness*	*Moderate Thinness*	*Mild Thinness*	*Normal*	*Over-weight*	*Obese Class I*
Vata Prakriti	6	1	4	4	1	0
Pitta Prakriti	1	1	2	3	0	0
Kapha Prakriti	0	1	2	4	0	0
Vata-Pitta Prakriti	6	3	7	28	1	0
Vata-Kapha Prakriti	5	3	6	13	3	0
Pitta-Kapha Prakriti	5	5	8	22	4	0

BMI: Body mass index

Table 5: Common symptoms

Sharira Prakriti (Body constitution)/ Common symptoms	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
Vata Prakriti	7	2	2	2	2	3	4	0	1	0	1	4
Pitta Prakriti	33	8	5	21	7	19	30	11	5	4	4	19
Kapha Prakriti	30	8	10	12	11	16	25	10	6	0	6	27
Vata-Pitta Prakriti	3	0	0	1	1	3	4	1	0	0	0	3
Vata-Kapha Prakriti	26	4	9	8	10	14	19	6	7	3	6	13
Pitta-Kapha Prakriti	11	3	4	6	0	5	13	0	7	0	1	5

was of 15.33% subjects, and moderate thinness was of 10% subjects that is about 44.66% were of low BMI, overweight subjects were of 4.66%, and obese Class I was of 1.33% [Table 3]. Low BMI is also one of the reasons for dysmenorrhea. A study has revealed that a higher prevalence of moderate and severe dysmenorrhea in UW (underweight) as compared to the OB (obese) subjects. We recommend further studies to explore the underlying pathophysiological mechanisms responsible for this association.[20]

BMI according to the *Sharira Prakriti* was recorded, maximum population (41) was of *Vata*, *Vata-Pitta,* and *Vata-Kapha – Prakriti*(s) and underweight group (66) as *Vata Dosha* is *Laghu* (light) which is responsible to make body light by weight. Furthermore, maximum population (38) was of *Pitta*, *Vata-Pitta,* and *Pitta-Kapha – Prakriti*(s) and it was of normal group as *Pitta dosha* is predominant or associated in these *Sharira Prakriti*(s) which maintains the normal weight (74 subjects). And from overweight group (9 subjects) were from *Vata-Kapha* and *Pitta-Kapha Prakriti*(s) as *Kapha* is heavy by weight [Table 4]. It means that *vata dosha* is responsible to make body light due to *laghu* (light) property.

In this study, common symptoms such as tiredness, back pain, sleeplessness, and acne are observed in maximum subjects [Table 5], due to imbalance in *Doshas*. It was observed that due to dysmenorrhea, maximum girls have the effect on the sleep which may effect on working and learning capacity. According to the Ayurveda, sleep is one of important pillar of life. Most of the diseases aggravate due to lack of sleep.

From gastrointestinal symptoms; specially tiredness, backache, loss of appetite [Table 6], and constipation [Table 7] from excretory symptoms are due to imbalance of *Vata dosha.* It was observed that maximum subjects were suffering from mood swings and were not able to concentrate during menstrual cycle [Table 8] is mainly due to vitiated *Vata dosha.*

If patients suffering from primary dysmenorrhea will follow Ayurveda's daily regimen as well as seasonal regimen in accordance with their *Prakriti* (body constitution), there will fewer chances to face this health problem and if faces it; it will be cured with precautions advised by Ayurveda. This study suggests to follow lifestyle as per *Sharira Prakriti* (body constitution) prescribed by Ayurveda as precautionary measure for primary dysmenorrhea.

Table 6: Gastrointestinal symptoms

Sharira Prakriti (Body constitution)/Symptoms	*Loss of appetite*	*Increased appetite*	*Nausea*	*Vomiting*
Vata Prakriti	4	0	0	2
Pitta Prakriti	17	5	11	2
Kapha Prakriti	11	6	5	4
Vata-Pitta Prakriti	1	0	0	1
Vata-Kapha Prakriti	13	3	3	1
Pitta-Kapha Prakriti	6	3	2	2

Table 7: Excretory symptoms

Sharira Prakriti (Body constitution)/ Symptoms	*Constipation*	*Diarrhea*	*Increased frequency of urination*	*Profuse sweating*
Vata Prakriti	2	0	1	0
Pitta Prakriti	11	4	9	6
Kapha Prakriti	10	2	8	7
Vata-Pitta Prakriti	1	0	0	0
Vata-Kapha Prakriti	9	1	4	2
Pitta-Kapha Prakriti	8	0	1	2

Table 8: Psychological symptoms: These symptoms were occurred as following details

Sharira Prakriti (Body constitution)	*Depression*	*Mood swings*	*Inability to concentrate*	*Nervousness*
Vata Prakriti	3	3	4	2
Pitta Prakriti	12	27	30	18
Kapha Prakriti	7	24	21	13
Vata-Pitta Prakriti	0	3	4	2
Vata-Kapha Prakriti	5	21	18	9
Pitta-Kapha Prakriti	9	12	9	11

Conclusions

Primary dysmenorrhea affects the social life. The present study has revealed that person having *Sharira Prakriti* (body constitution) of *Vata dosha* dominance and *Vata* associated *Prakriti* (*Vata-Pitta* and *Vata-Kapha Prakriti*) were maximum who were suffering from Grade 1 and Grade 2 type of pain. Regarding dietary lifestyle, it has revealed that *Vata dosha* provoking food (bitter, pungent and astringent tastes, and bakery products), opposite food, and non-vegetarian food was responsible for *Vata* vitiation which was responsible for pain in primary dysmenorrhea. Hence, knowledge of *Prakriti*

(body constitution) is helpful to add beneficial effect in the management of primary dysmenorrhea.

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