



A Pilot Study To Understand Etiology Of *Udavarthini Yonivyapath* (Dysmenorrhea)

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Abstract

Ayurveda is science which focuses more on prevention of diseases in a healthy individual and later curing of disease in diseased one. In order to prevent any disease, it's very important to know the causative factor (*Nidana*) of the diseases. Dysmenorrhea being one among the gynecological problems faced by women of reproductive age, prevalence of it varies between 16% - 91% with severe pain in 2% - 29% of women. In ayurveda, dysmenorrhea can be correlated to *Udavarthini Yonivyapath*. Taking this into consideration, the present study has been entitled "A Pilot Study to Understand Etiology of *Udavarthini Yonivyapath* (Dysmenorrhea)" has been carry out to establish the relation between etiology and menstrual pain, menstrual flow. The etiological factors assessed were *mithyachara*, *beeja dushti* and *vega dharana*. For the present observational study, 50 patients were selected from our institution irrespective of Religion, Occupation and marital status with sign and symptoms of *Udavarthini Yonivyapath*. The observations obtained are analyzed statically using Spearman's rank correlation coefficient. The results showed that relation between etiology and menstrual flow, pain in *Udavarthini Yonivyapath* is not statistical significance.

Key words: *Nidana*, *Udavarthini Yonivyapath*, *Mithyaachara*, *Beeja dushti*, *Vega Dharana*.

Introduction

Dysmenorrhea is the painful menstruation of sufficient magnitude so as to incapacitate day to day activities¹. The main complaint in this condition is *Rajahkrichratha* (painful menstruation). It affects approximately 50-60% of the women of reproductive age² and about 10% are incapacitated for 1-3 days each month.³ Ayurveda classics have mentioned 20 types of *yonivyapat*, among them *Udavarthini yonivyapat* is caused by vitiated *vata dosha*⁴ due to *mithyaachara*, *vega dharana* and *beeja dosha*⁵. The aggravated *vata* (*apana vata*) moving in reverse direction fills *yonis*, this *yonis* seized with pain initially throws or pushes the *raja* upwards then discharges it with great difficulty. The lady feels relief immediately following discharge of menstrual blood⁶.

As it is told in our classics that *Nidana Parivarjana* is a form of *chikitsa*⁷, understanding of *Nidana* is very essential in prevention and treatment of the disease. Thus, an attempt is made to understand etiology of *udavarthini yonivyapath* with special reference to dysmenorrhea.

Aim

To evaluate the etiology of *Udavarthini Yonivyapath*

Objective

- To assess the relation between menstrual flow and *nidana* of *Udavarthini Yonivyapath*
- To assess the relation between menstrual pain and *nidana* of *Udavarthini Yonivyapath*

RESEARCH METHODOLOGY**METHODOLOGY****STUDY DESIGN**

This was a cross-sectional survey study. The study consisted of a conceptual and an observational part. In the conceptual part relevant literature about the concept of *Udavarthini Yonivyapath*, understanding of *mityopachara*, *vega dharana*, *beeja dosha* was collected, conceptualized and analysed from ayurvedic perspective. Questionnaire consisting of queries related to details on the menstrual flow, menstrual pain, intake of various food articles, history of all *vega dharana* and familial history related to the disease was prepared. In the Observational part, a cross-sectional survey was conducted to assess the *nidana* of *udavarthini Yonivyapath* with the help of the questionnaire. The data collected were classified, interpreted and statistically analysed to draw the final conclusion.

SAMPLE SOURCE

In the study 50 subjects of age group of 18-30 years, irrespective of gender, religion, occupation, marital status, socio-economic status and educational status were randomly selected from Alva's Education Foundation, Moodubidri Taluk, Dakshina Kannada District.

INCLUSION CRETERIA

- Female subjects with regular menstrual cycle.
- Subjects aged between 18-30 age group.
- Subjects facing menstrual cramps during menstrual flow.

EXCLUSION CRETERIA

- Subjects with irregular menstrual Cycle.
- Subjects with other gynaecological disorders.

ASSESSMENT CRETERIA

Data was assessed by

- Comparing days of menstrual flow with *aahara*, *vegadharana*, *beeja dushti*.
- Comparing extent of menstrual pain with *aahara*, *vegadharana*, *beeja dushti*.

OBSERVATIONS

Table No.1. Days of Menstrual Flow & Intake of Idli/Dosa

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
3 Days	7.1%	78.6%	14.3%	0%
5 Days	19.2%	65.3%	15.4%	0%
7 Days	14.3%	71.4%	14.3%	0%
More than 7 Days	0.0%	66.6%	33.7%	0%

Table No.2. Days of Menstrual Flow & Intake of Non vegetarian Food

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
3 Days	7.1%	85.7%	0%	7.1%
5 Days	3.8%	57.7%	7.7%	30.8%
7 Days	42.9%	42.8%	0%	14.3%
More than 7 Days	33.3%	0%	33.3%	33.3%

Table No.3. Days of Menstrual Flow & Intake of Refrigerated Food

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
3 Days	7.1%	64.3%	21.4%	7.1%
5 Days	3.8%	50%	34.6%	11.5%
7 Days	14.3%	42.9%	28.6%	14.3%
More than 7 Days	0%	33.3%	66.7%	0%

Table No.4. Days of Menstrual Flow & Intake of Over Heated Food

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
3 Days	0%	78.6%	14.3%	7.1%
5 Days	3.8%	42.3%	30.8%	23.1%
7 Days	0%	57.1%	28.6%	14.3%
More than 7 Days	0%	0%	100%	0%

Table No.5. Days of Menstrual Flow & Intake of Over Baked Food

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
3 Days	0%	64.3%	35.7%	0%
5 Days	0%	46.2%	50%	3.8%
7 Days	0%	28.5%	71.4%	0%
More than 7 Days	0%	100%	33.3%	33.3%

Table No.6. Days of Menstrual Flow & Intake of Pulses

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
3 Days	0%	42.9%	50%	7.1%
5 Days	3.8%	50%	38.5%	7.7%
7 Days	14.3%	71.4%	14.3%	0%
More than 7 Days	0%	33.3%	66.7%	0%

Table No.7. Days of Menstrual Flow & Intake of Street Food

Table No.8. Days of Menstrual Flow & Intake of Food more than Quantity

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
3 Days	0%	57.1%	35.7%	7.1%
5 Days	0%	46.1%	46.2%	7.7%
7 Days	0%	57.1%	42.9%	0%
More than 7 Days	0%	33.3%	66.7%	0%
Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
3 Days	0%	28.6%	28.6%	42.9%
5 Days	3.8%	30.8%	46.1%	19.2%
7 Days	28.6%	28.6%	14.3%	28.6%
More than 7 Days	0%	66.6%	33.3%	0%

Table No.9. Days of Menstrual Flow & Intake of Food during mental disturbance

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
3 Days	7.1%	28.6%	21.4%	42.9%
5 Days	0%	42.3%	38.5%	19.2%
7 Days	28.6%	28.6%	14.3%	28.6%
More than 7 Days	0%	33.3%	66.7%	0%

Table No.10. Days of Menstrual Flow & Intake of Sour Fruit Milkshakes

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
3 Days	0%	35.7%	42.9%	21.4%
5 Days	0%	15.4%	34.6%	50%
7 Days	0%	14.3%	28.6%	57.1%
More than 7 Days	0%	33.3%	66.7%	0%

Table No.11. Days of Menstrual Flow & Intake of Hot Food along with Cold Food Item

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
3 Days	7.1%	14.3%	42.9%	35.7%
5 Days	0%	11.5%	53.8%	34.6%
7 Days	0%	28.6%	28.6%	42.9%
More than 7 Days	0%	0%	100%	0%

Table No.12. Days of Menstrual Flow & Indulging in Physical Activity soon after having food

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
3 Days	21.4%	21.4%	28.6%	28.6%
5 Days	19.2%	42.3%	26.9%	11.5%
7 Days	0%	71.4%	28.6%	0%
More than 7 Days	33.3%	33.3%	33.3%	0%

Table No.13. Days of Menstrual Flow & Intake of Coffee/Tea

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
3 Days	57.1%	7.1%	28.6%	7.1%
5 Days	53.8%	3.8%	30.8%	11.5%
7 Days	57.1%	14.3%	14.3%	14.3%
More than 7 Days	33.3%	0%	33.3%	33.3%

Table No.14. Days of Menstrual Flow & Intake of Food as per Hunger

Days of Menstrual Flow	Yes	No
3 days	87.71%	14.3%
5 days	88.5%	11.5%
7 days	85.7%	14.3%
More than 7 days	100%	0%

Table No.15. Days of Menstrual Flow & Familial History of *Udavarthini Yonivyapath*

Days of Menstrual Flow	Yes	No
3 days	64.3%	35.7%
5 days	57.7%	42.3%
7 days	28.6%	71.4%
More than 7 days	33.3%	66.6%

Table No.16. Occurrence of Menstrual Pain & Intake of Idli/Dosa

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
Regular	19.4%	61.3%	19.4%	0%
Occasionally	0%	91.7%	8.3%	0%
Rarely	14.3%	71.4%	14.3%	0%
Never	0%	0%	0%	0%

Table No.17. Occurrence of Menstrual Pain & Intake of Non vegetarian Food

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
Regular	16.1%	45.2%	9.6%	29.0%
Occasionally	8.3%	91.7%	0%	0%
Rarely	0%	71.4%	0%	28.6%
Never	0%	0%	0%	0%

Table No.18. Occurrence of Menstrual Pain & Intake of Refrigerated Food

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
Regular	3.2%	54.8%	29%	12.9%
Occasionally	16.7%	41.7%	33.3%	8.3%
Rarely	0%	57.1%	42.9%	0%
Never	0%	0%	0%	0%

Table No.19. Occurrence of Menstrual Pain & Intake of Over Heated Food

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
Regular	0%	45.2%	35.5%	19.4%
Occasionally	8.3%	58.3%	25%	8.3%
Rarely	0%	71.4%	14.3%	14.3%
Never	0%	0%	0%	0%

Table No.20. Occurrence of Menstrual Pain & Intake of Over Baked Food

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
Regular	0%	51.6%	41.9%	6.5%
Occasionally	0%	50%	50%	0%
Rarely	0%	28.5%	71.4%	0%
Never	0%	0%	0%	0%

Table No.21. Occurrence of Menstrual Pain & Intake of Pulses

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
Regular	3.2%	51.6%	35.5%	9.6%
Occasionally	8.3%	41.7%	50%	0%
Rarely	0%	57.1%	42.9%	0%
Never	0%	0%	0%	0%

Table No.22. Occurrence of Menstrual Pain & Intake of Street Food

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
Regular	0%	48.4%	41.9%	9.6%
Occasionally	0%	50%	50%	0%
Rarely	0%	57.1%	42.9%	0%
Never	0%	0%	0%	0%

Table No.23. Occurrence of Menstrual Pain & Intake of Food more than Quantity

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
Regular	0%	38.7%	32.3%	29%
Occasionally	8.3%	33.3%	50%	8.3%
Rarely	0%	28.6%	28.6%	42.9%
Never	0%	0%	0%	0%

Table No.24. Occurrence of Menstrual Pain & Intake of Food during mental disturbance

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
Regular	3.2%	32.3%	35.5%	29%
Occasionally	8.3%	50%	25%	16.7%
Rarely	14.3%	28.6%	28.6%	28.6%
Never	0%	0%	0%	0%

Table No.25. Occurrence of Menstrual Pain & Intake of Sour Fruit Milkshakes

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
Regular	0%	22.6%	29.0%	48.4%
Occasionally	0%	25%	50%	25%
Rarely	0%	14.3%	57.1%	28.6%
Never	0%	0%	0%	0%

Table No.26. Occurrence of Menstrual Pain & Intake of Hot Food along with Cold Food Item

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
Regular	3.20%	9.6%	51.6%	35.5%
Occasionally	0%	16.7%	58.3%	25%
Rarely	0%	28.6%	28.6%	42.9%
Never	0%	0%	0%	0%

Table No.27. Occurrence of Menstrual Pain & Indulging in Physical Activity soon after having food

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
Regular	19.4%	35.5%	32.3%	12.9%
Occasionally	8.3%	50%	25%	16.7%
Rarely	28.6%	42.9%	14.3%	14.3%
Never	0%	0%	0%	0%

Table No.28. Occurrence of Menstrual Pain & Intake of Coffee/Tea

Days of Menstrual Flow	Daily	Occasionally	Rarely	Never
Regular	41.9%	6.5%	32.3%	19.4%
Occasionally	75.0%	0%	25%	0%
Rarely	71.4%	14.3%	14.3%	0%
Never	0%	0%	0%	0%

Table No.29. Occurrence of Menstrual Pain & Intake of Food as per Hunger

Days of Menstrual Flow	Yes	No
Regular	87.09%	12.90%
Occasionally	91.66%	8.3%
Rarely	75.71%	14.28%
Never	0%	0%

Table No.30. Occurrence of Menstrual Pain & Familial History of *Udavarthini Yonivyapath*

Days of Menstrual Flow	Yes	No
Regular	61.29%	38.70%
Occasionally	66.66%	33.33%
Rarely	0%	100%
Never	0%	0%

Table No.31. Statistical Significance between occurrence of Menstrual Pain & Intake of Coffee/Tea

	Aches	Aches vs. Drink tea or coffee
Spearman r		
R		-0.3384
95% confidence interval		-0.5694 to -0.05791
P value		
P (two-tailed)		0.0162
P value summary		*
Exact or approximate P value?		Approximate
Significant? (alpha = 0.05)		Yes
Number of XY Pairs		50

RESULTS AND DISCUSSION

Discussion on *mithyaahaara*

1. Intake of *guru aahaara*

From the observations, majority of the subjects were occasionally consuming food prepared from Urad Dal and Non-Vegetarian Food which influences the menstrual flow and menstrual pain. These are *guru* in nature. *Guru guna pradhana aahaara* is one of the *amapradoshaja ahara*⁸. *Guru guna ahara* is *chirapaki*⁹ which means digests slowly and thus contributory factor to *ama pradoshana*. Statistical Significance between the *guru pradhana aahaara* & menstrual flow, menstrual pain wasn't found.

2. Intake of *sheeta aahaara*

Even though there was no statistical significance between refrigerated food and menstrual pain, flow, the observation states the maximum people in the study consumed refrigerated food occasionally, thus influencing the menstrual pain and flow. It is *sheeta guna*. *Sheeta guna* is having *sthambana karma*¹⁰ which is contributory to the pain. It is *vatakara*¹¹ aggravating *vata* and causing *shoola*.

3. Intake of *ruksha ahara*

Most of patients consume over heated food occasionally. As it is *ruksha* in nature, intake of *ruksha ahara* aggravates *vata*¹² and causes pain during menstrual flow.

4. Intake of *khara ahara*

Among all the groups most of the patients consume oven baked food occasionally. It is *khara* in nature, intake of *khara ahara* aggravates *vata*¹³ and causes pain during menstrual flow.

5. Intake of pulses

From the observations, more percentage of patients consume pulses occasionally. These are *shimbi dhanya* and are *vibandha kruth*¹⁴, causing *apana vata dushti*¹⁵ which in turn causes menstrual pain.

6. Intake of *Kashaya rasa*

There is statistical significance of consumption of tea/coffee and occurrence of menstrual aches. Intake of tea/coffee which is one among the *kashaya rasa pradhana ahara* taken in daily basis. *Kashaya rasa* causes *srotorodha*¹⁶ leading to obstruction of *vayu* which hampers its *anulomana gati* in turn leading to pain.

Discussion on *Vega Dharana*

Among the *vega*, there were less impact of *vega dharana* and *shoola*. *Vega pravartana* is function of *Vata*¹⁷ and due to *nigraha* of *vega*, there is *vata prakopa*¹⁸ leading to menstrual pain.

Discussion on commencement of menstrual pain

31 participants responded that, menstrual pain initiated since menarche, indicating that there is improper *aahaara vihaara* during the time of menarche causing *kha vaigunya*¹⁹ in *yonis*.

Discussion on *Beeja dosha*

27 participants responded that there is contributory familial history, showing *beeja dosha* has effect on *udavarthini yonivyapath*.

Conclusion

From the percentage evaluation, there is relation between menstrual flow, menstrual pain and intake of *Guru aahaara*, *Sheeta aahaara*, *Khara aahaara*, *Asuchi bhojana*, *Kashaya rasa* in the *Udavarthini Yonivyapath*. Statistical Significance between the *nidanas* and *udavarthini yonivyapath* was not established. Statistical Significance between menstrual pain and intake of tea/coffee was found.

Thus, to understand the relation between other *nidanas* and the menstrual pain/ menstrual flow, there is need more specificity of the *nidanas* and increase the sample.

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