



Review Article

www.ijrap.net (ISSN:2229-3566)



A REVIEW ON UNDERSTANDING KASHTARTAVA THROUGH DYSMENORRHOEA: AN INTEGRATED CONCEPTUAL APPROACH

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Received on: 29/09/20 Accepted on: 20/11/20

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DOI: 10.7897/2277-4343.1106191

ABSTRACT

Menstruation, a complex cyclic phenomenon, is an inevitable natural occurrence in women's life and is considered as landmark of homeostatic condition of reproductive system. In Ayurvedic classics all gynecological problems are described under the broad term Yoni Vyapat. Painful menstruation is called Kashtartava. The present article explores the cause – mechanism effect of Symptom Kashtartava and it is critically reviewed under the light of modern disease Dysmenorrhea. Primary Dysmenorrhoea is considered as Kashtartava and is a common complaint seen in all gynecological OPD's.

Keywords: Dysmenorrhoea, Kashtartava, Yoni vyapat

INTRODUCTION

The disease 'Kashtartava' is not described in any of the classics as an individual Disease, but it is considered and described as a symptom in many diseases. All Acharyas have described regarding this symptom but all references are scattered in description of different yoni vyapat. Acharya Charaka in his Nidana sthana has mentioned symptoms of a disease themselves also constitute as a disease. In Ayurvedic classics, all gynecological problems are described under the heading of "Yonivyapat". Dysmenorrhea and pre-menstrual syndrome are the commonest Gynecological disorders causing great distress to women every month but still are the least reported symptoms. Primary Dysmenorrhea refers to painful menstruation in the absence of any underlying pelvic pathology. It is most common gynecological disorder which is now recognized as an important women's health issue with high prevalence. It is a major symptom in many medical conditions, can significantly interfere with a person's quality of life and general functioning. It is the main reason for visiting the emergency department in more than 50% of cases. The prevalence in developing countries revealed that about 25-50 % of adult women and about 75 % of adolescents experience pain during menstruation, with 5 -20 % reporting severe Dysmenorrhea or pain that is severe enough to prevent them from carrying out their day-to-day activities. In consequence, it is associated with emotional, social and economic burdens. Majority of cases of Dysmenorrhea fall into the group of Primary Dysmenorrhea and it is probable that nearly 50% of adult female population suffer from this.

Concept of Artava

The substance produced from Rasa dhatu in females having the color of Rakta, flowing out for three days every month is known as Artava (menstrual blood). The various factors for the formation of Artava mentioned in Ayurveda are Kala (time), Dhatuparipurnata, Karma, Swabhava, and Vayu. Vyana Vayu-All body functions are under the control of Vyana Vayu. Apana Vayu- It helps in the excretion of Mala (stool), Mootra (urine),

Shukra (reproductive fluids/semen), Artava and Garbha at appropriate time by its Anulomana karma (regularizing physiological movement).¹⁻³ Vyana (a subtype of vata, that is seated in hridaya) and Apana Vata (a subtype of vata, that is seated in pelvic region) work together, as Vyana Vata controls the contraction and relaxation of uterus along with other organs, while Apana Vata expels the Artava by its Anulomana karma. The Shuddha Artava lakshanas are (The pure menstruation qualities)

1. That which flows for 3 – 7 days in every month without pain or burning sensation,
 2. Which is like the color of Gunjaphala, Padmalakta, Indragopa (shiny insect), Shashasruk
 3. This is not unctuous, moderate in amount and that which does not stain the clothes.
- Varna (color) - Gunjaphala, Padmalakta, Indragopa, Shashasruk
 - Gandha(smell) - Visra amagandhi (smell of raw meat), Madhu Gandhi (smell of honey)
 - Matra (quantity) - 4 Anjali
 - Srava kala (duration of flow) - 3 to 7 days
 - Sparsha (on touch) - Agneya
 - Sanghatana (composition) - Agni, Jala, Prithvi

Nirukti of Kashtartava and Dysmenorrhea

"Kashtartava" term is a self-explanatory one and requires little description. It is formed of two words: 'Kashta' and 'Artava'. 'Kashta' means Dukha, Painful Difficult Troublesome, unnatural. 'Artava' means - Masika srava- Periods of menstruation. 'Kashtena' - With great difficulty.¹ Thus the word Kashtartava can be implied or expressed as the condition where in Artava is shaded with great difficulty and pain.

The word Dysmenorrhea is derived from the Greek words: Dys: difficult, painful, and abnormal Meno: month Rrhea: flow, thus the condition where monthly flow is painful with difficulty.

Dysmenorrhea can be defined as Painful menstruation of sufficient magnitude so as to incapacitate day-to-day activities⁸.

Primary Dysmenorrhea is a condition which painful menstruation without any demonstrable pelvic pathology. In addition to menstrual pain, many women experience associated symptoms such as headache, constipation, nausea, vomiting and fatigue and leg pain¹⁴.

Nidana (Etiology)

The nidana of Kashtartava as such is not explained separately in Ayurvedic classics, but it is found as a symptom in following Yoni vyapad like - Vatala, Sannipataja, Paripluta, Mahayoni, Udavarta, Vataja Artava Dushti, Vatika asrigdara etc.

Samanya Nidana (Common causes)

Table 1: Samanya Nidana of Yoni vyapad

Causative factor	C S	S S	B P	M N	A S
Mithya ahara	+	+	+	+	+
Mithya vihara	+	+	+	+	+
Artava Dushti	+	+	+	+	+
Beeja dosha	+	+	+	+	+
Daiva	+	+	+	+	+
Shukra Dushti	+	-	-	-	-
Vishama sthana Shayana	-	-	-	-	+ ²⁻⁷

(C S- Charaka Samhita, S S - Sushruta Samhita, B P- Bhava prakasha Nighantu, M N- Madhava nidana, A S- Ashtanga Sangraha)

Due to above said nidanas vitiated vata withholding pitta and kapha already vitiated due to their specific causes, reaches the yoni and produces various disorders

Vishesha nidana of Yoni vyapad (Special causes)

1. Vatala Yoni vyapad

Vayu aggravates due to the intake of Vatala ahara and vihara.

2. Sannipataja Yoni vyapad

Consumption of Hita (wholesome) and Ahita ahara (unwholesome) together.

3. Paripluta Yoni vyapad

If a pitta prakruti stree, goes for intercourse and she suppresses urge of sneezing and belching, vata associates with pitta and causes Paripluta yoni vyapad.

4. Mahayoni Yoni vyapad

Due to improper posture for intercourse vata aggravates at yonimukha and causes pain during menstruation.

5. Udavarta Yoni vyapad

Due to movement of flatus and other natural urges in reverse direction, the aggravated Vayu (Apana Vayu) moving in reverse direction fills the Yoni (vagina).

6. Artava Dushti

Due to increase of vata dosha, by its own nidanas it takes sthanasamshraya at Artava vaha srotas (fallopian or uterine tubes) and causes vataja Artava Dushti.

7. Vataja Asrigdara

Vata vitiated by Rukshadi gunas affects Artava vaha srotas causing Shoola yukta pradara.

Other Nidanas

Manasika Hetu: Krodha, Shoka, Lobha, Irsha, Chinta, Bhaya, Harsha, Moha etc.

Beeja Dosha: Congenital abnormalities due to genetic factors.

Daiva (Idiopathic): Purva-janmakrita Karma or unknown etiological factors.

Causes of Primary dysmenorrhoea: ⁹⁻¹³

Psycho somatic factors: tension, anxiety and low pain threshold.

Hormonal imbalance

Spasmodic dysmenorrhoea has some connection with the hormone stimulus to the uterus. Progesterone stimulates myometrial contraction of the muscle of the cervix and causes narrowing of the cervical canal. Progesterone further stimulates the production of prostaglandin F2 alpha which in turn accentuates pain.

Myometrial ischemic theory

Rapid distention of the uterus due to any cause, increases muscular activity and metabolism and decreases blood circulation to it. Lack of blood supply causes myometrial ischemia thus producing painful stimuli. This type of pain is cured by childbirth, because blood supply of the myometrium will be improved. Contrary to this myometrium of a multiparous uterus shows vascular degeneration but they don't suffer from dysmenorrhoea. Which do not support the ischemic theory.

Abnormal anatomical and functional aspects of Uterus

Such as internal OS stenosis, narrowing of cervical canal, unequal developments of Mullerian ducts as in septet or bicornuate uterus, uterine hypoplasia.

Role of Vasopressin

There is increased in release of vasopressin during menstruation in cases of primary Dysmenorrhoea. In such cases anti prostaglandin drugs does not work. The reason may be that it increases prostaglandin synthesis and Myometrial activity directly.

Role of Prostaglandins

In Ovulatory cycles under the action of progesterone, that is fall in the level during menstruation prostaglandins (PGF2 α , PGE2) are synthesized from secretary endometrium. With the fall of estrogen and progesterone prior to menstruation, the prostaglandins are released with maximum production during shedding of the endometrium PGF2 α is a strong vasoconstrictor causing ischemia (angina). Either due to increase production of the prostaglandins or increase sensitivity of Myometrium to the normal production of prostaglandins there is increased Myometrial contractions with or without dysrhythmia ultimately leading to pain.

Systemic disease and general ill health

Severe malnutrition, acute and chronic illness may be associated with dysmenorrhoea. As pain threshold is decreased by ill health of any kind.

Poor posture

Due to poor posture, the normal body mechanism also suffers, like the loss of tone of nerves supplying blood vessels and muscle tissues. Poor posture leads to primary dysmenorrhoea in poor asthenic women whose pain threshold is low and generative organs are functionally faulty.

Inadequate liquefaction of the menstrual clot

Due to deficiency of either thrombolysis in menstrual blood becomes clotted. Due to failure of liquefaction clotted blood obstructs the passage of the cervical canal. To expel out those clots uterus contracts vigorously thus painful menstruation arises.

Samprapti (Pathogenesis)

The probable mode of pathogenesis may be viewed as Vata Dosha can be aggravated in following ways,

Vatala Ahara – Vihara sevana

Due to consumption of Vata Prakopaka Ahara and Vihara, the aggravated Vata will produce Kshobha (irritation) in Garbhashaya (uterus) leading to Toda (pricking pain) and Vedana (pain)

Dhatu Kshaya (emaciation of dhatu) causes pain in two ways:

1. Dhatu Kshaya turns women to be Heena satva (less tolerance power) where pain threshold is lowered, and pain is felt for even the slightest disorder.
2. Dhatu Kshaya due to Alpa ahara (less quantity of food intake) leads to gradual depletion of dhatus successively which leads to decrease in Upadhatu Nirmana (the minor structural components that stabilize the body-Artava). This will further vitiate Vata Dosha by its ruksha and Khara gunas producing Kshobha and Toda in Garbhashaya.

Marga Avarana: (obstruction to channels)

The Kaphavrita Vata dosha produces pain in Kashtartava.

Acharya Charaka says - by occupying different sthana, Vata produces various disorders with respect to its various etiological factors. The vitiated Vata by its Ruksha, Sheeta properties spread through Rasavaha (channels carrying nutrient fluids), Rakta vaha (channels carrying blood tissue) and Artava vaha srotas leading to Dosha-Dushya Samurchana in Garbhashaya. Due to vitiation of Vyana and Apana Vayu the Akunchana (contracting), Prasarana (stretching) Kriya of Garbhashaya does not take place properly, hindering in proper flow of menstrual blood leading to Kashtartava.

Mechanism of Pain production in Dysmenorrhoea

Severe vasoconstriction, ischemia, obstruction, inflammation etc; Conditions for which receptors are directly stimulated by mechanical stress (or irritation) or indirectly by Algogenic substances like PGs, bradykinin etc. which are produced due to tissue damage.

By the receptors, a stimulus goes to spinal segment and then passes to ascending tract and reach the pain centre of brain, then we identify the pain, the same process of pain production takes place in dysmenorrhoea. Nerve supply to the uterus is important to locate the site of pain in dysmenorrhoea. It is principally derived from sympathetic system and partially from

Parasympathetic system. Sympathetic components are from T5 and T6 (motor) and T10 to L1 spinal segments (sensory).

The somatic distribution of uterine pain is that area of the abdomen supplied by T10 to L1. The parasympathetic system is represented on either side by the pelvic nerve, which consists of both motor and sensory fibers from S2, S3, S4 and ends in the ganglia of Frankenhauser, which lies on sides of the cervix. Both parietal and visceral afferent pain may be transmitted from the uterus. The lower abdominal cramping pains of dysmenorrhoea are mediated through sympathetic afferents and hence may be referred to appropriate segments.^{9,12,13}

Rupa (signs and symptoms)

Painful menstruation is the only rupa in this disease. Anubandha Vedana (secondary or dependant symptoms) can be;

- Sa-phena: Apana Vayu vitiates Artava, it becomes frothy.
- Tanu: Vayu Dosha (Vyana and Apana) causes a decrease in Kapha and hence less viscous.
- Ruksha: Ruksha Guna of Apana Vayu makes the Artava Ruksha.
- Alpa: There are two reasons - Dhatu kshaya (Rasa and Rakta) causing Alpa Artava Nirmana (Upadhatu); or vitiated Apana Vayu does Shoshana of menstruation.
- Krishna (blackish) And Aruna (reddish) Varna: due to the vitiation of Artava by Vayu.

Symptoms of Dysmenorrhoea

- Pain low in the abdomen that can spread to the lower back and legs
- Pain that is gripping or experienced as a constant ache, or a combination of both
- Typically, the pain starts on or before the period starts
- The first 24 hours is the most painful
- Clots are passed in the menstrual blood.^{12,13}

Associated symptoms

- Headache
- Nausea and vomiting
- Digestive problems, such as diarrhea or constipation
- Fainting
- Premenstrual symptoms, such as tender breasts and a swollen abdomen, which might continue throughout the period
- Pain continuing after the first 24 hours (this tends to subside after two or three days).

Chikitsa Siddhanta (Principles of Treatment)

Kashtartava is a type of Artava Vikriti. It occurs during the formation of Artava or Artava vimunchana (during expulsion of menstrual blood). Chikitsa of Kashtartava is not mentioned specifically.

As Vata is the main root cause for all Yoni vyapad, so it should be alleviated first. Then other associated doshas should be treated.

- Virechana (purgation therapy) is beneficial for Yoni Rogas and Artava Rogas.¹⁵
- Acharya Sushruta says that in Yoni rogas Artava will be in dushtavastha and Artava suddhi should be attained by following shodhana (major purification therapies). For Artava Suddhi, after applying Deepana- pachana (appetizer and digestive), and Snehana (therapeutic oleation), Swedana

(sudation therapy), five Shodhana measures should be used, after this Uttarbasti (basti administered through vaginal or urethral route) should be given repeatedly.¹⁶

- Uttarbasti should be given on the basis of vitiation of Doshas.¹⁷
- Ashtanga Hridaya also opines the same that, vata dosha should be primarily treated and then others. Uttarbasti and yoga's mentioned for yoniroga should be followed giving due consideration to the vitiated Doshas.¹⁸
- For Avrutta Apana Vayu, treatment should be Agnideepana (appetite stimulative), Grahi (absorptive), Vatanulomana (regularizing physiological movement of Vata dosha) and Pakvashaya Suddhi (purification of Intestines).

Pathya

Aharaja

- Ushna and Laghu ahara
- Shali (rice), Yava (barley) and other cereals
- Arishta (fermented medications) and Mamsa yoga's.¹⁹
- Diet having abundance of milk.
- Lohabhasma with honey.²⁰
- Lashuna Sevana, Deepana and Pachana diet e.g. ginger, Saindhava etc.

Viharaja

- Yogasana
- Pranayama (control of breath)
- Hot water bath
- Hot water bag in low back, abdomen etc.

Apathya

Aharaja

- Excess intake of Amla (sour), Katu (pungent), Lavana (salty) rasa foods.
- Excess Katu, Ushna and Sheeta dravyas.

Viharaja

- Cold water bath
- Exposure to cold weather or wind.

DISCUSSION

The word Kashtartava can be implied or expressed as the condition where in Artava is shaded with great difficulty and pain. As pain is predominant symptom in Kashtartava and without the Vata dosha vikruti there will be no pain. Thus 'Kashtartava' is a condition in which all the three Doshas are involved with the predominance of Vata.

It has been mentioned in the Samhitas of the Ayurveda as 'Kashtartava', which is found in almost all yoni vyapad as a major symptom. But Kashtartava word signifies generally as menstruation with severe pain in lower abdomen. In Primary Dysmenorrhea, the spasmodic nature of the lower abdominal muscles causes intense pain, which is intolerable for the female. Vegavarodha (suppression of natural urges) and Mithya-ahara vihara (unwholesome diet and lifestyle activities) vitiates Apana Vayu and Vyana Vayu leading to the obstruction of vata Marga (channels that conducts nerve impulse) and resulting in its Vimarga Gamana (abnormal movement of vata dosha). The vitiated Vayu produces Asamyak-Prasarana (abnormal or

improper movement) in Garbhashaya to expel Artava with severe pain and difficulty. Vata Dosha causes irregular menstrual cycles with scanty menstruation. It is clear in modern texts that occasionally patients with Primary dysmenorrhoea have slightly irregular cycles with less amount of menstrual blood.

CONCLUSION

In Ayurvedic classics all gynecological problems are described under the broad term Yoni vyapad. The disease 'Kashtartava' is not described in classics as an individual disease entity. Even then it is a symptom of various Yoni vyapad specially Udavarta (Upward movement of Vayu with retention of stool and urine), Vatala, Sannipataja etc. It is Tridosha Vyadhi with Vata predominance. On analysis, one can make out that it is a result of Vata vriddhi (increased vata), apana vatamargavarodha (obstruction to channels of Apana vayu), Artava Dushti (vitiation of menstrual blood) and dhatukshaya especially affecting Rasa dhatu.

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Cite this article as:

Meghana N and Santosh V R. A Review on understanding Kashtartava through Dysmenorrhoea: An Integrated Conceptual Approach. *Int. J. Res. Ayurveda Pharm.* 2020;11(6):86-90
<http://dx.doi.org/10.7897/2277-4343.1106191>

Source of support: Nil, Conflict of interest: None Declared

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