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**Case Study** 

# MANAGEMENT OF DYSMENORRHEA DUE TO OVARIAN ENDOMETRIOMA W.S.R TO VATIKA ARTAVADUSHTI BY AYURVEDIC REGIME - A CASE REPORT

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# ABSTRACT

Endometriomas are cystic lesions that stem from the disease process of endometriosis. Ovary is the most common site for endometriosis (60-70%) and dysmenorrhea is its commonest manifestation. Dysmenorrhea means painful menstruation. Therefore in Ayurveda this condition can be correlated with Vatika Artavadushti as painful menses (Vata vedana) is mentioned as one of the main characteristic feature of it according to Acharya Sushruta. Hereby, reporting a case of 24 year old unmarried female who visited Prasutitantra and Striroga OPD at National Institute of Ayurveda, Jaipur. Main Clinical Findings: Patient presented with the complaints of painful and scanty menses along with vomiting and fever during menstrual days since 1.5 years. Patient also added that she was having dark brown colored menses. Ultrasonography dated 03<sup>rd</sup> December 2021 suggested bilateral enlarged ovaries with small left ovarian endometrioma. Diagnosis: On the basis of these clinical presentations and ultrasonography findings patient was diagnosed with Ovarian Endometrioma and was further correlated with Vatika artavadushti as mentioned in Ayurveda classics. Intervention: As vitiation of Vata dosha is main causative factor for all these symptoms, treatment of same was of prime importance. Ashtang Sangraha while explaining the management of Vatika Artavadushti have mentioned Kashmarya-Kshudrasaha Ksheerapaka as one of the treatment modality. Hence it was taken as the drug of choice. **Outcome:** After 2 months of treatment an ultrasound was repeated which showed no any impression of Ovarian Endometrioma. Conclusion: Kashmarya-Kshudrasaha Ksheerapaka is found effective in the management of Ovarian Endometrioma. The purpose of this study is to report the potential of Kashmarya-Kshudrasaha Ksheerapaka in the management of painful menses due to ovarian endometrioma along with its effect on dark brown colored and scanty menses with special reference to Vatika artavadushti.

#### **INTRODUCTION**

Endometriomas are cystic lesions that stem from the disease process of endometriosis.<sup>[1]</sup> Endometriosis is the presence of functioning endometrium (glands and stroma) in sites other than

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uterine mucosa<sup>[2]</sup> and ovary is the most common site for endometriosis (60-70%)<sup>[3]</sup>. Endometriosis is characterized by dysmenorrhea, abnormal uterine bleeding, infertility, dyspareunia, chronic pelvic pain and abdominal pain. Other symptoms of pelvic endometriosis are back pain, dysuria, constipation, melena, chronic fatigue, perimenstrual symptoms and so on<sup>[4]</sup>.

Amongst all these symptoms dysmenorrhea is commonly found in 70% of cases.<sup>[5]</sup> Dysmenorrhea literally means painful menstruation. But if we search for a more realistic and practical definition, it states that dysmenorrhea includes cases of painful menstruation of sufficient magnitude so as to incapacitate day-to-day activities.<sup>[6]</sup> In cases of endometriosis, the pain starts a few days prior to menstruation and gets worsened during menstruation and takes time, even after cessation of period to get relief of pain.<sup>[7]</sup>

Painful menstruation being the commonest manifestation, in Avurveda this condition can be correlated with Vatika Artavadushti as painful (Vata*vedana*) and dark brown colored (*Vata-varna*) menses is mentioned as the main characteristic feature of Vatika Artavadushti by Acharya Sushruta<sup>[8]</sup>

In contemporary science, dysmenorrhoea is treated using hormones, NSAIDs, antispasmodic, analgesics etc.<sup>[9]</sup> But also none of these drugs promise to compensate the discoloration of menstrual blood. So this study is an attempt to find solution to this problem along with relief in pain.

The pathogenesis of *Vatika Artavadushti* shows that it occurs due to vitiation of *Vata*. Artava vitiated by Vata is said to be dark brown or blackish in color, is thin, dry, frothy and scattered. It is excreted slowly and with pain, specially with perforating or piercing type of pain.<sup>[10]</sup> All the Varna and Vedana of Vata are said to be present in Artava vitiated with it.<sup>[11]</sup> So the drug which have capacity to break the pathogenesis, arrest the progression of disease, reduce risk of complications and relieve the symptoms required for it's management. Kashmarya-Kshudrasaha Ksheerpaka being mentioned as one of the treatment protocol for Vatika Artavadushti in Ashtang Sangraha<sup>[12]</sup>, it is taken Ashtavidh Pariksha as the drug of choice to rule out it's therapeutic efficacy in the management of the same, with special consideration of Vata-varna and Vata-vedana.

# CASE REPORT

A 24 year old unmarried female, visited Prasutitantra and Striroga OPD at National Institute of Ayurveda, Jaipur with complaints of painful and scanty menses along with vomiting and fever during menstrual days since 1.5 years and hard stools as associated complaint.

# **Menstrual History**

LMP – 2<sup>nd</sup> December 2021 Menstrual Cycle -Interval: 30 Days Flow days: 1 Day (2-3 pads) Pain: Severe (VAS Score – 6) Onset of Pain – 4-5 days before menses Color: Dark brown Clots: 4-5 clots of less than 5 Rs. Coin size **Burning sensation: Absent** Foul smell: Absent

#### **Past Medical History**

- Patient gave history of taking Tab. Dinogest 2mg for 85 days in the year 2020. During the course she did not have menses but resumed menstruation just after stoppage of medicine. After this she had had relief in pain, vomiting and fever, but there was no satisfactory relief in scanty menses. She further mentioned that after 6 months her problems resumed.
- She had no history of DM/ HTN/ Thyroid dysfunction or any systemic disorder.

# **Past Surgical History**

Patient had no significant past surgical history.

# **Family History**

Father – Koch's disease before 26 years – ATT taken for 6 months.

Mother – Diabetes mellitus since 5 years – on regular medication.

## **Allergy History**

Patient had no specific history of allergy to any drug or food material.

#### **Personal History**

Appetite – Decreased Sleep - Sound Bowel - Constipated, once in 2-3 days Bladder – Clear, 4-5 times/day

Addiction – No any

# Examination

Nadi – Vata-pittaj

Mala – Niraam, Once in 2-3 days

*Mutra* – 4-5 times/day

Jivha – Niraam

Shabda – Spashta

Sparsha – Anushna

Druk – Prakrut

Akriti – Madhyam

# **General Physical Examination**

Built - Moderate

Nourishment - Moderate

Weight - 50kg

Temperature - 97.8 F

Pulse – 78/min

Blood Pressure – 110/70mmHg

# Systemic Examination

CNS- Patient is conscious, well oriented to place and time, all 12 pairs of cranial nerves are responsive. CVS- S<sub>1</sub>S<sub>2</sub> audible, Normal, No any abnormal sounds heard.

| Per Abdomen - Soft, Non tender.AyurvedicP/V and P/S examination: Not done as the patient<br>was unmarried.Vatika Artavadushti<br>Vataj YonivyapadINVESTIGATIONSArtavakshayaUltrasonography Impression - 03/12/2021Modern1. Bilateral enlarged ovariesOvarian Endometrioma2. Small left ovarian endometrioma - A well-defined<br>thick walled cystic lesion of approximate<br>20.6*15.9*17.3 mm with dense low-level internal<br>echoes is noted in the left adnexal region.Ovarian EndometriomaHormonal Assay- 15/09/2021 (On second day on<br>menses)Final Diagnosis<br>Ayurvedic1. FSH - 5.75 mlU/ml<br>2. LH - 16.2 mlU/ml<br>3. PRL - 15.0 ng/mlAs per disease presentation and menstrual pattern, the<br>final diagnosis is -Blood investigations - 14/09/2021<br>1. Haemoglobin - 10.6 gm%As per disease presentation and investigations, the<br>final diagnosis is:  | RS – Air entry equal on both sides.   | Differential Diagnosis   |
|---|---|--|
| <ul> <li>was unmarried.</li> <li>INVESTIGATIONS</li> <li>Ultrasonography Impression – 03/12/2021</li> <li>1. Bilateral enlarged ovaries</li> <li>2. Small left ovarian endometrioma – A well-defined thick walled cystic lesion of approximate 20.6*15.9*17.3 mm with dense low-level internal echoes is noted in the left adnexal region.</li> <li>Hormonal Assay – 15/09/2021 (On second day on menses)</li> <li>1. FSH – 5.75 mIU/ml</li> <li>2. LH – 16.2 mIU/ml</li> <li>3. PRL – 15.0 ng/ml</li> <li>Blood investigations – 14/09/2021</li> <li>1. Haemorlobin – 10.6 gm%</li> <li>Vataj Yonivyapad</li> <li>Artavakshaya</li> <li>Modern</li> <li>Ovarian Endometrioma</li> <li>Ovarian Endometrioma</li> <li>Hypomenorrhoea</li> <li>Dysmenorrhoea</li> <li>Dysmenorrhoea</li> <li>Dysmenorrhoea</li> <li>Final Diagnosis</li> <li>Ayurvedic</li> <li>As per disease presentation and menstrual pattern, the final diagnosis is –</li> <li>Vatika Artavadushti</li> <li>Modern:</li> <li>As per disease presentation and investigations, the final diagnosis is:</li> </ul> | Per Abdomen – Soft, Non tender.   | Ayurvedic  |
| Prognosis (Sadhyaasadhyata): Sukha-sadhya   | <ul> <li>P/V and P/S examination: Not done as the patient was unmarried.</li> <li>INVESTIGATIONS</li> <li>Ultrasonography Impression – 03/12/2021</li> <li>Bilateral enlarged ovaries</li> <li>Small left ovarian endometrioma – A well-defined thick walled cystic lesion of approximate 20.6*15.9*17.3 mm with dense low-level internal echoes is noted in the left adnexal region.</li> <li>Hormonal Assay- 15/09/2021 (On second day on menses)</li> <li>I. FSH – 5.75 mIU/ml</li> <li>LH – 16.2 mIU/ml</li> <li>PRL – 15.0 ng/ml</li> <li>Blood investigations – 14/09/2021</li> </ul> | Vatika Artavadushti<br>Vataj Yonivyapad<br>Artavakshaya<br>Modern<br>Ovarian Endometrioma<br>Hypomenorrhoea<br>Dysmenorrhoea<br>Final Diagnosis<br>Ayurvedic<br>As per disease presentation and menstrual pattern, the<br>final diagnosis is –<br>Vatika Artavadushti<br>Modern:<br>As per disease presentation and investigations, the<br>final diagnosis is: |

# **Treatment Given** Pharmacological Intervention

#### **Table 1: Treatment**

| S. No.  | Medicine                              | Dose   | Duration |
|---------|---------------------------------------|--|----------|
| 1.      | Kashmarya-Kshrudrasaha<br>Ksheerapaka | 40ml, twice a day, empty stomach                   |          |
| 2.      | Ajamodadi churna                      | 3gm, twice a day, before food, with lukewarm water | 2 Months |
| 3.      | Panchsakar churna                     | 5 gm, at bed time, with lukewarm water             |          |
| lf Care |                                       | SHDHP  |          |

# **Self Care**

Patient was advised to follow Rajaswalacharya.

Same treatment protocol was followed for 2 months. No change in therapeutic intervention was done. **OBSERVATION AND RESULTS** 

### **Table 2: After Completion of Medicines Changes in Signs and Symptoms**

| Menstrual History | Before Treatment                          | After Treatment                            |
|-------------------|---|--|
| Interval          | 30 Days                                   | 30 Days                                    |
| Flow days         | 1 Day                                     | 3 Days                                     |
| Pad History       | D1 – 2 Pads                               | D1 – 2-3 ; D2 – 1-2 ; D3 – 1 (Half soaked) |
| Pain              | Severe                                    | Mild                                       |
| VAS Score         | 6   | 2  |
| Onset on Pain     | 4-5 Days before menses                    | On the day of menses                       |
| Color             | Dark brown                                | Red  |
| Clots             | 4-5 clots of less than 5 Rupees Coin size | 1-2 of less than 25 cent Coin size         |
| Burning Sensation | Absent                                    | Absent                                     |
| Foul Smell        | Absent                                    | Absent                                     |

## **Table 3: Before Treatment and After Treatment**

| 03/12/2021<br>Bilateral enlarged ovaries<br>Small left ovarian endometrioma – A<br>well-defined thick walled cystic lesion | 24/02/2022<br>Left ovary shows single anechoic<br>cystic area of 16mm*15 mm - Left                      |  |  |  |  |
|--|---|--|--|--|--|
| of approximate 20.6*15.9*17.3 mm with dense low-level internal echoes is noted in the left adnexal region.                 | ovarian retention cyst.<br>(No any signs of ovarian<br>endometrioma found)                              |  |  |  |  |
| Hormonal Assay (On 2 <sup>nd</sup> Day of Menses)  |   |  |  |  |  |
| 5.75 mIU/ml  | 6.14 mIU/ml   |  |  |  |  |
| 16.2 mIU/ml  | 5.46 mIU/ml   |  |  |  |  |
| 15.0 ng/ml   | 8.33 ng/ml  |  |  |  |  |
| Blood Investigation  |   |  |  |  |  |
| 10.6 gm%   | 10.7 gm%  |  |  |  |  |
| WNL  | -   |  |  |  |  |
|  | is noted in the left adnexal region.<br>Menses)<br>5.75 mIU/ml<br>16.2 mIU/ml<br>15.0 ng/ml<br>10.6 gm% |  |  |  |  |

# **Adverse Effects**

No adverse effects of any given drug were observed in the patient.

## DISCUSSION

Endometriomas are cystic lesions that stem from the disease process of endometriosis.<sup>[13]</sup> Endometriosis is the presence of functioning endometrium (glands and stroma) in sites other than uterine mucosa<sup>[14]</sup> and ovary is the most common site for endometriosis (60-70%)<sup>[15]</sup>. Endometriosis is characterized by dysmenorrhea, abnormal uterine bleeding, infertility, dyspareunia, chronic pelvic pain and abdominal pain. Other symptoms of pelvic endometriosis are back pain, dysuria, constipation, melena, chronic fatigue and perimenstrual symptoms<sup>[16]</sup>.

In Endometriosis the functioning endometrium is getting located at abnormal sites other than uterus and retrograde menstruation is assumed to be a prime cause of it<sup>[17]</sup>. So a hypothetical correlation can also be made here that *Vata dosha* is getting vitiated and is leading to this abnormal movement as it is the entity which is responsible for movement<sup>[18]</sup>. This vitiated *Vata dosha* is further developing symptoms like painful, scanty and dark brown colored menses, therefore this condition can be correlated with *Vatika Artavadushti*.

*Kashmarya-Kshudrasaha Ksheerpaka* being mentioned as one of the treatment protocol for *Vatika Artavadushti* in *Ashtang Sangraha*<sup>[19]</sup>, it was taken as the drug of choice to rule out it's therapeutic efficacy in the management of the same.

# Kashmarya (Gambhari)

Kashmarya (Gmelina arborea Linn.) belongs to Verbenaceae family. It is *Guru*, having *Tikta*, *Kashaya* and *Madhura rasa* with *Katu vipaka* and *Ushna virya*. Because of its *Guru guna* and *Ushna virya*, *Kashmarya* helps in pacification of *Vata dosha*. On pharmacological screening of *Kashmarya* - benzoic acid was found in roots, whereas fruits mainly contained butyric acid and tartaric acid.<sup>[20]</sup> *Kashmarya* is also widely used as analgesic, antimicrobial, anti-diabetic and antiepileptic.<sup>[21]</sup>

# Kshudrasaha (Mudgaparni)

*Kshudrasaha* (*Phaseolus trilobus* Ait.) belongs to Leguminosae family. It is *Laghu, Ruksha* having *Madhura rasa* with *Madhura vipaka* and *Shita virya*.<sup>[22]</sup> It possess beneficial effects as hepato-protective, antimicrobial and anti-oxidant. It shows *Rasayana* activity due to the presence of phenol compounds, flavonoids, triterpenoids and gallic acid.<sup>[23]</sup> Due to its predominant *Madhura rasa* and *Madhura vipaka*, it helps in pacification of *Vata dosha*.

*Ksheerapaka* was made according to the reference of *Acharya Sharandhara* i.e., by boiling *Kashmarya Churna* (2.5gm) + *Kshudrasaha Churna* (2.5gm) with 40ml of milk and 160ml of water. (1:8: 32 ratio of *Churna*, milk and water respectively).<sup>[24]</sup>

As *Vata dosha* got pacified, it arrested further growth of ovarian endometrioma for which abnormal movement of *Vata* was the root cause and also gave symptomatic relief to the patient.

For associated conditions of decreased appetite and constipated bowel patient was given *Ajamodadi Churna* 3gm, twice a day before food with lukewarm water and *Panchsakar Churna* 5gm at bed time with lukewarm water respectively.

**Ajamodadi Churna** – Ajamoda, Vidanga, Saindhava Lavan, Devadaru, Chitraka, Pippalimoola, Satavha, Pippali and Maricha churna 1 part each mixed with 5 parts of Haritaki churna and 10 parts of Vriddhadaruka and Shunthi each.<sup>[25]</sup> As it is Ushna and Tiksha in properties, it was given to patient for enhancing Agni and improve appetite.

**Panchsakar churna** – Sunthi, Jiraka, Swarna patra (Sanai patta), Saindhava lavana and Haritaki churna in equal quantity. As mentioned in Siddha-bhaishajya-manimala, it is indicated in Vibandha.

This case study proves the effectiveness of *Kashmary-Kshudrasaha Ksheerapak* in the management of Ovarian endometrioma with special reference to *Vatika Artavadushti* as mentioned in *Ashtang Sangraha*.

This study also shows that textual formulations are effective in given conditions but, to compete in emerging world of evidence based medicine, detailed scientific study of same is required for generating evidences in-order to prove its effect on modern grounds and better understanding of mode of action of drugs.

# Limitations

Though *Kashmarya-Kshudrasaha Ksheerapaka* 8. was found effective in the management of Ovarian endometrioma, this study fails to prove the exact mode of action of drug in treating the same on modern 9. grounds. Detailed analytical study of the drug is needed to analyze each and every component of the drug explain its effect on ovarian endometrioma. Also this study limits to explain any conjoint effect of *Ajamodadi Churna* and *Panchasakar Churna* on same, because though these drugs were used for treating the associated conditions, their components had *Vata shamak* and *Vata anulomana* properties.

# CONCLUSION

*Kashmarya-Kshudrasaha Ksheerapaka* is effective in the management of Ovarian Endometrioma; but, more such studies are required in order to establish the detailed mode of action of given drug and also to generate shreds of evidence for the same.

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