

## Efficacy of Ayurvedic formulation on *Raktapradara* W.S.R. dysfunctional uterine bleeding: A case report

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### ABSTRACT

Dysfunctional uterine bleeding is one of the gynecological disorders of reproductive age group. Heavy bleeding interferes with the physical, emotional, social life of the concerned woman. According to Ayurveda it can be correlated with *Raktapradara*. This case study was done to evaluate the efficacy of the drugs which are used for treating DUB. The treatment was done for the duration of six months. The response to the treatment was recorded and therapeutic effects were evaluated with the help of symptomatic relief and ultrasonography. The results revealed that DUB can be cured with Ayurvedic regimen and can avoid hysterectomy or other surgical intervention.

**Key words:** Dysfunctional uterine bleeding (DUB), *Raktapradara*, Ayurvedic Regimen.

### INTRODUCTION

Abnormal uterine bleeding is a condition that affects approximately 30% of women during their reproductive years<sup>1</sup>. One national study shows that menstrual disorders were the reason for 19.1% of 20.1 million visits to physicians office for gynecologic conditions over a two year period<sup>2</sup>. Furthermore ,a reported 25 % of gynecologic surgeries involve abnormal uterine bleeding<sup>3</sup>.

It is a considerable health care burden for a woman and has a definite effect on her quality of life. DUB has various definitions and classifications. It is define as a state of abnormal uterine bleeding without any clinically detectable organic, systemic, and iatrogenic cause (pelvic pathology e.g. tumor, inflammation or pregnancy is excluded). Currently many authors define DUB as a state of abnormal uterine bleeding following an ovulation due to dysfunction of hypothalamus pituitary ovarian axis<sup>4</sup>. Ovulatory DUB is

predominantly associated with decreased endometrial vasoconstriction and vascular haemostatic plug formation. Anovulatory DUB is very poorly understood, but may be associated with disturbed angiogenesis, fragile vessels and defective haemostatic process<sup>5</sup>.

The current concept related to abnormal uterine bleeding is most likely due to the local cause in the endometrium. There is some disturbance in the endometrial blood vessels and capillaries and coagulation factor of blood in and around these vessels. These are probably related to alteration in the ratio of prostaglandins which are delicately balanced in haemostasis of menstruation. It is more prevalent in extremes of reproductive period, adolescence and premenopause or following childbirth. Some iatrogenic causes like induction of bleeding by medications, including anticoagulants, selective serotonin reuptake, corticosteroids, hormones, tamoxifen causes abnormal bleeding. Some herbal substance including ginseng, ginko and soy supplements may cause menstrual irregularities by altering estrogen levels or clotting parameters<sup>6</sup>. Emotional influences, worries, anxiety or sexual problems are enough to disturb the normal hormonal balance. Hormonal abnormalities that are thyroid dysfunctions, elevated prolactin, obesity, excessive weight loss, liver disorders are other causative factors of DUB.

In Ayurvedic classics it described as *Asrigdara* which comes under the heading of *artavavyapada*. Maharshi Charaka has written one gynecological disorder i.e. *yonivyapada* named

*raktayoni* or *asrija* having same clinical features. Maharshi Charaka describes *Asrigdara* as a symptom i.e. presence of excessive bleeding during menstruation<sup>7</sup>. Maharshi Sushruta defines it as that when menstruation occurs in excess amount, for prolonged period, and or even without normal period of menstruation i.e. during menstruation excessive in amount and for prolonged period but in intermenstrual period even scanty and for short duration<sup>8</sup>. It is said to be one of the disorder of *rakta dhatu* i.e. blood<sup>9</sup>, symptom of *pittavrut apana vayu*<sup>10</sup>, complication of *yonirogas*<sup>11</sup>. Charaka describes its pathophysiology. He says that aggravated *Vata* affects uterine vessels and boosts amount of blood and this increase in blood thus causes increase in menstrual blood and creates *raktapradara*<sup>12</sup>. Modern science also accepts that because of the faulty life style estrogen disturbance occurs, which causes increase in vasodilatation and blood supply in endometrium.

Severe bleeding affects on woman's health, happiness and causes great discomfort. In modern science it is treated with hormones, antiprostaglandins, NSAIDs, antifibrinolytic agents; synthetic analogue of arginine etc. which causes several side effects. If oral therapy fails then surgical intervention is the option. To overcome this problem herbal drugs can be used.

## AIMS

To establish the efficacy of the ayurvedic regimen on DUB.

## OBJECTIVES

1. To evaluate the therapeutic efficacy of the drugs
2. To study the recurrence rate

## MATERIAL AND METHODS

Ayurvedic literature related to abnormal uterine bleeding i.e. *Raktapradara*, *Artavavyapada*, *Yonivyapada* was searched. Books related to pharmacology of Ayurvedic drugs which are used in formulation and related research papers also searched for their mode of action. Other research journals, papers, books related to abnormal uterine bleeding are also explored to collect the matter.

### Case history

This study was done at government Autonomous Ayurved College, Jabalpur.M.P. A 40 years old female came to OPD on date 3-5-2013 (OPD No.5574) with complaint of excessive, on and off vaginal bleeding with clots and dysmenorrhoea since one month. She was under allopathic treatment since two years for the same complaint. But due to recurrence she requested for Ayurvedic treatment. She had associated symptoms like pain in abdomen, backache, loss of appetite, constipation, migraine and anxiety.

Thorough history was taken. She had no history of medical illness or known allergies. There was no family history of coagulopathic disorders or breast cancer. Her menstrual history included excessive per vaginal bleeding on and off since one

month and was suffering from such episodes of bleeding since two years.

Amount of bleeding-4-5 pads/day which were fully soaked.

Consistency-watery with clots++.

Colour-Raktavarna (bright red, sometimes blackish).

Mild dysmenorrhoea was present.

Obstetric history includes G<sub>3</sub>P<sub>2</sub>A<sub>1</sub>, both deliveries were full term and spontaneous with no complaints and obstetric complications, one spontaneous abortion of 2 months gestation after first baby.

Her physical examination revealed normal vitals, *nadi* was *Vatapradhana*, and pallor was present. All physical examination findings were remarkable. Result of PAP smear was normal. Before planning the treatment ultrasonography was done which shows bulky uterus with normal ovaries, and no adnexal mass. Endometrial thickness was 14 mm. Thyroid profile was normal. Blood reports showed Hb 8 gm %, BT CT – normal, Urine analysis shows pus cells 2-3/hpf, weight was 53 kg.

### Management

In active phase of bleeding she was treated with

1. Combination of,

*Nagkeshra churna*: 2 gms

*Lodhra churna*: 2 gms

*Bolbaddha rasa*: 250 mg

*Prawal pishti: 250 mg*

Given 3 times a day before meals with water.

2. *Chandraprabha vati* 1 tablet 3 times a day with water after meals

3. *Panchatiktaghrita guggula* ,2 *guggula* 2 times a day with lukewarm water after meals.

4. *Darvyadi Qwath* 20 ml 2 times a day with same amount of lukewarm water after meals.

She was advised to take plenty of oral liquids, light diet, and to avoid spicy, food. The same treatment was continued.

In passive phase of bleeding,

*Lohasava* 20 ml 2 times a day with equal amount of lukewarm water for 3 months

*Chitrakadi vati* 1 tablet 3 times a day with water before meals for 7 day for *aamapachana*

*Triphala churna* 5 gm at night with lukewarm water for 7 days

She was asked for regular follow-up, first after 7 days and thereafter 15 days interval. Duration of treatment was 6 months.

## OBSERVATIONS

During this period menstrual cycle of the patient becomes regular with duration of 3-4/28 days with average amount of bleeding. Ultrasonography reports showed no evidence of endometrial hyperplasia. Endometrial thickness was 7 mm. Hb% improves, it was 11.2 %, with

good sense of living. The patient is on follow-up without any medicine on normal cyclic rhythm till date. There is no evidence of recurrence of dysfunctional uterine bleeding.

## DISCUSSION

*Shuddha artava* is one of the most important factor for the healthy progeny. Dysfunctional uterine bleeding can be correlate with *Asrigdara*. DUB is very severe and life threatening condition which requires hospitalization sometimes. In classics as the disease is characterized by excessive flow of blood out of the body and *rakta* is known to be vital substance (*jiva*), hence *raktasthapana chikitsa* becomes important. *Charaka* explained the treatment of *raktayoni*. He said it to be treated as the treatment like *raktatisara*, *raktapitta*, *raktarsha*<sup>13</sup>. So according to line of treatment *raktasthapana*, *dosha pachana*, and *deepana-pachana chikitsa* should be done by using *tikta*, *kashaya rasa pradhana dravya*. Hence such drugs are selected which can workout at the different level of *samprapti*.

*Nagkeshara*-It is *ruksha*, *laghu* in *guna*, *kashaya rasa*, *katu vipaka*, *sheeta veerya*. It is *vedanasthapana*, *shonitsthapana*, *kaphaghna*, *mastishkabalya*, having *deepana pachana* activity.. Due to these said properties it helps to relieve the pain, stops the bleeding, it may act on H-P-O axis as it is a brain tonic and helps to improve appetite by its *deepana-pachana* property. It cures hemorrhage<sup>14</sup>. It is coagulant causes excellent vasoconstriction of capillaries thus

stopping bleeding and reducing swelling. It is useful in inflammation of uterus and reduces menorrhagia<sup>15</sup>. Mesuol and measuone two phytoconstituent of Nagakeshara shows antibiotic activity. Mesuol is more active than measuone against mycobacterium phlei<sup>16</sup>, it means it may protect against genital tract infection which is more susceptible for infections during menstruation as the vaginal pH changes. Ethanolic extracts of whole plant showed antibacterial activity. It is antifungal, lowers blood pressure in hypertensive patients, antispasmodic, anti-inflammatory.

**Lodhra-** It is ruksha, laghu in guna, kashaya rasa, katu vipaka; sheeta veerya. It pacifies kapha and pitta. Being a vasoconstrictor it is used in bleeding disorder and inflammation. It reduces meda and rakta (hemostat- bleeding disorder)<sup>17</sup>. It is good hepatoprotective, analgesic, anti-inflammatory, immunomodulator having antimicrobial property. Compounds carbohydrates, sterols and flavonoids in the ethanolic extract of the plant may responsible for these activities<sup>18</sup>. It has antiandrogenic effect, helps to recover ovarian and uterine weight. It stimulates FSH levels along with rise in Sr. LH. Bark has antifibrinolytic, haemostatic, stomachic and antioxidant<sup>19</sup> property.

**Prawal Pishti-** It is laghu, ruksha, sweet, slightly sour, madhur vipak, sheeta veerya, tridoshaghna. It contains calcium carbonate 83%, magnesium carbonate 3.5%, Iron 4.5%, organic compound 8%<sup>20</sup>. It is a rich source of calcium. Recent studies have shown that calcium has a positive role in treating

menstrual cramps effectively<sup>21</sup>. Withdrawl of estrogen cause significant loss of bone calcium<sup>22</sup>, so it helps to prevent osteoporosis. It can reduce the pain as well as fluid retention which is seen in PMS. It helps for the function of blood clotting. Prawal pishti reduces hyperacidity. It has deepana-pachana property and is beneficial for bleeding disorders, calcium deficiency, and general debility. It has anti-inflammatory action and used in uterine bleeding, dysmenorrhoea specifically membranous type, breast tenderness.<sup>23</sup> It exhibits cytotoxic activity against breast adenocarcinoma.<sup>24</sup> It prevents osteoporosis<sup>25</sup>.

**Bolbaddha rasa-** It is a herbomineral drug having ingredient like kajjali, due to which it possesses *Rasayna* property and act as *yogwahi* potentiating the effect of bhawna dravya (shalmali pushpa). The other ingredients which are used in the formulation acts by their rasa, guna, vipaka and veerya, tridosha shamaka action, they acts fully uprooting the disease.<sup>26</sup> It is haemostatic, used in menorrhagia, dysfunctional uterine bleeding<sup>27</sup>.

**Chandraprabha vati-** It is useful in the menstrual disorders of female. It helps to cure pradara, rejuvenates the body, increases bala, appetite and ojas<sup>28</sup>. It has anti-inflammatory effect, haematinic, haematogenic (helps in formation of RBCs), analgesic and muscle relaxant<sup>29</sup>.

**Panchatiktaghrita guggula-** It improves digestion, purify the blood. The drugs used in this preparation are also has tikta, katu, kashaya rasa property



.Guggula contains essential oils, it is ushna, snigdha, and picchila, pittaghna by kashaya and madhura rasa, kaphaghna by katu, tikta, tikshna guna. It is tridosh-hara. It is analgesic, good appetizer, liver stimulant hence useful in liver disorder. It increases hemoglobin and leukocyte count and enhances blood quality. It helps in edema, glandular enlargement, dysmenorrhoea, leucorrhoea and other gynecological disorders. It rejuvenates the body tissues and increases strength. It is good rasayna<sup>30</sup>

Darvyadi Qwath-It cures pradara<sup>31</sup>. Kashaya rasa plays important role to relieve the bleeding due to its stambhana action

In nut shell the drugs used in formulation are rakta shodhaka, raktasthapaka having garbhashaya shothhara property.

## CONCLUSION

The above treatment protocol was found to be effective in dysfunctional uterine bleeding. There is no recurrence of such type of bleeding episodes till date. This single case study shows encouraging result in dysfunctional uterine bleeding and need of further study for its scientific validation.

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