

## ASRIGADARA-A FOCUS ON ENDOMETRIAL RESPONSE IN DISEASE PROCESS AND IT'S RELEVANCE IN TREATMENT

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### ABSTRACT

*Asrigdara* is one of the main gynaecological disorder. A condition associated with severe bleeding during menstruation. It's clinical features are very near to that of Dysfunctional Uterine Bleeding. A lot's of researches are going on to understand the pathology of it, researches suggests that disturbed haemostatic mechanism, altered angiogenesis and disturbed inflammatory responses are causes of Dysfunctional Uterine Bleeding but Modern science is unable to tackle with, these endometrial responses and conventional hormonal treatment has it's limitations. It is associated with their side effects

and nothing to do with correction of basic pathology. On the other hand *Ayurveda* believes that *Doshas* are basic physiological unit of body and disturbance in their equilibrium results disease in body. In this article pathogenesis of *Asrigdara* which is very similar to Dysfunctional Uterine Bleeding is explained in light of altered functioning of *Doshash* on endometrium, which will open a new area of research for drugs advised in treatment of *Asrigadara* in Samhitas having their effect on endometrial changes at enzymatic and histo-pathological level.

**KEYWORDS:** *Asrigadara*, *Ayurveda*, *Dosha*, Endometrium.

### INTRODUCTION

*Asrigdara* is a disease manifesting as excessive bleeding per vagina. This disease has been known to mankind since the age of *veda* and *purana*. *Acharaya Charaka* explained *Asrigdara* as a separate disease with its management in *yoni vyapata chikitsa*. He has also explained it as one of the *Rakta pradoshaja vikara* and also under *pittavruta apana vayu*.<sup>[1]</sup> *Acharya Sushruta* explained it as a separate disease entity and mentioned it under *pitta samyukta*

*apana* and in *Rakta pradoshaja vyadhi*.<sup>[2]</sup> *Ashtanga Sangraha* explained *raktayoni* and said *Asrigdara* and *pradara* as its synonyms.

*Ayurveda* opines that vitiation of *Doshas* are prime for generation of disease. Concept of *Anshamshadusti* of *Doshas* (disturbance in specific quality of *Doshas*)<sup>[3]</sup> and *Stroto Dushti* is also a very important concept for a disease process. Every *Dosha* has its specific *gunas* (quality) and in a disease specific *guna* (quality) get vitiated by particular *nidan sevana* (causative factor). Abnormalities at particular site of body ( very similar to concept of *Sroto Dushti* ) are also starts with *nidan sevana*.<sup>[4]</sup> So concept of *nidan*, vitiated *Guna* of specific *Dosha* (*Amshamshadusti* of *Dosha* i.e. specific quality of *Doshas*), *Stroto dushti* caused by particular *nidan*, *Sthanasamshraya* (accumulation of *Doshas* at particular site) are the responsible factor for manifestation of disease process. Disease can not be treat successfully without giving proper consideration to these points. Such treatment that gives consideration to whole disease process (i.e. *Samprapti*) is beauty of *Ayurveda* whereas in Modern Medicine; after effect of causative agent on body is treated, they have no concept about disturbed homeostasis of body which get disturbed in the state of Disease.

So to understand disease process of *Asrigdara*, first the role of *Doshas* on menstrual cycle and their vitiation by *nidan* should be clear.

## LITERATURE REVIEW

### Concept of *Artava*

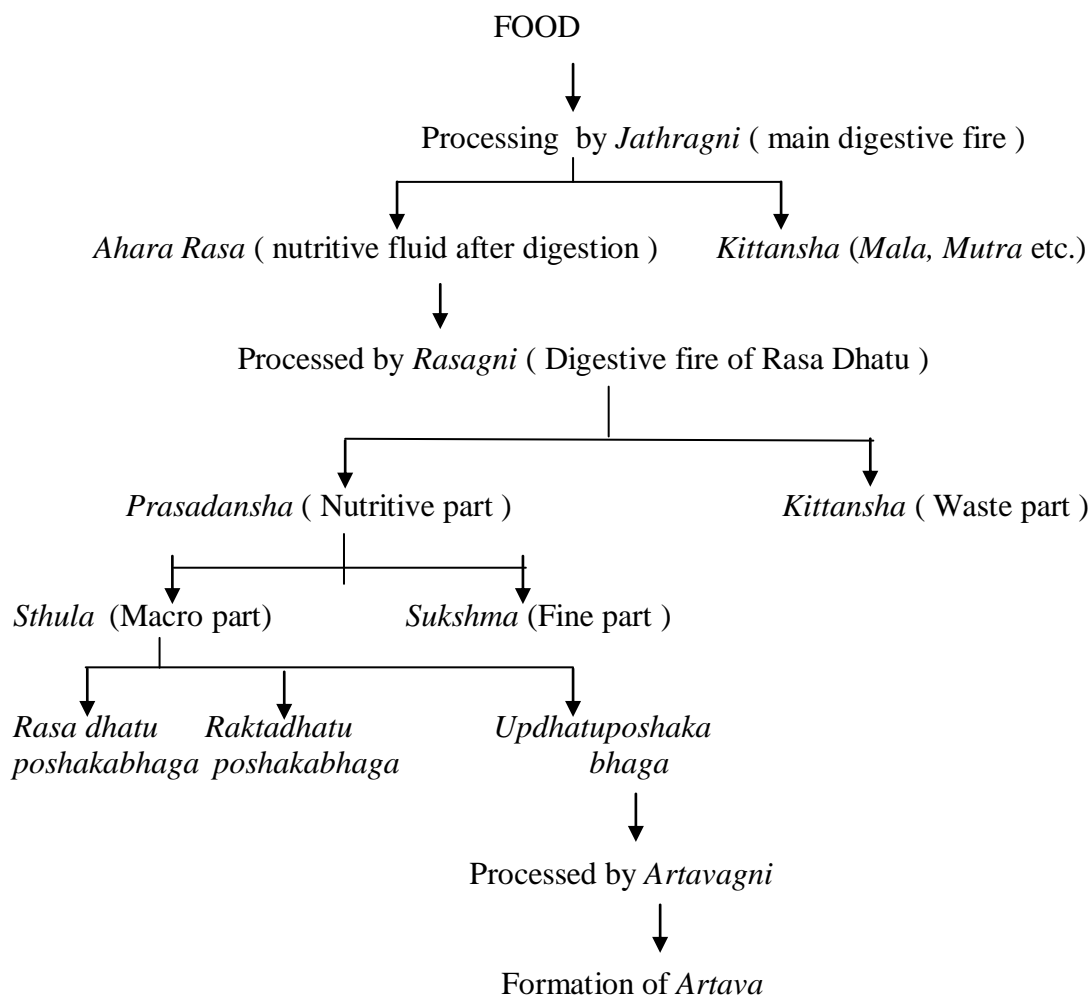
“*Ritubhavamityartavam*”<sup>[5]</sup>

The word, *Ritu* means–Particular or specific time, *Bhavam*- Occurrence.

### Definition of *Artava*

In female, the periodical bloody discharges having blackish colour and specific odour through vagina by *vayu*, is known *Artava*.<sup>[6]</sup> According to *Charaka* from the various kinds of food ingested, assumable nutrient fluid called the *Prashadabhaga* and excretory matter called the *Mala bhaga*<sup>[7]</sup> get formed. Just after the completion of action of *Jathragni* and *Bhutagni*, *ahara* converts into *Ahara-rasa* upon which *Rasa dhatvagni* acts and produces two main parts named, *Sthulabhaga* and *Shukshmathaga*. Out of them, *Sthulabhaga* is used as an *Upadhatu* i.e. *Artava*.<sup>[8]</sup>

*Sushruta* while describing the formation of *dhatu*s accepts formation of *Artava* as *Dhatu rupa* (as tissue) along with *Shukra* in female.<sup>[9]</sup>

**PROCESS OF FORMATION OF ARTAVA<sup>[10]</sup>****STATUS OF DOSHAS DURING MENSTRUAL CYCLE**

*Raja sravakala* (menstrual period)—it mainly influenced by *vata*. Excretion or movement of any substance from one place to another is the function of '*vata*'.<sup>[11]</sup> Mensrual flow is main function of *Apanavata*<sup>[12]</sup> (type of *vata*). According to modern gynaecological aspect, regression of endometrium, increase vascular fragility, increase inflammatory reactions and mediators are seen in this phase.<sup>[13]</sup>

**Ritukala (Period till ovulation):** *Ritukala* starts with establishment of '*Navin raja*'<sup>[14]</sup>. The '*Navin raja*' may be considered with proliferation of endometrium followed by ovulation.

During proliferation phase reconstruction of endometrium starts and endometrium become spongy.

It is known that *prithvi* and *jalamahabhuta* are required for regeneration and *bhautik* components of *kapha* are *prithivi* and *jala*. So in proliferative phase, *kapha* dominance is proved.

**Rituvyatitakala (Period after ovulation till next mense get start)**

After *ritukala*, *Artava* becomes *agneya* and in this period '*purana raja*' is present in *Garbhashaya*<sup>[15]</sup>. Secretory activity due to various enzymatic action increases during this period.<sup>[16]</sup> These enzymatic activities are very similar to function of *pitta*. It can be said that the stage is govern by *pitta*.

Proper balance of all the three *doshas* during whole month is responsible for normal menstruation. Disturbance in their balance leads to *vayadhi*.

*Asrigdara* is one of the diseases which are caused by the *doshik* disturbance and manifest as excessive bleeding per vagina.

**NIRUKTI OF ASRIGDARA(Derivation)**

The derivation of word '*Asrigdara*' is derived from two words, that is -

*Asrik* – menstrual blood

*Dara* – excessive excretion

*Asrik* + *Dara* – *Asrigdara*

Excessive excretion of *raja* (menstrual blood) it is named as "*pradara*" it is the condition in which the *raja* (menstrual blood) flows in abundant quantity. Due to *pradirana* (excessive excretion) of *raja* (menstrual blood) it is named as "*pradara*" and since, there is *dirana* (excessive excretion) of *asrik* (menstrual blood) hence it is known as "*Asrigdara*". *Acharya Dalhana* has described clinical feature of *Asrigdara* i.e. excessive and prolonged or prolonged blood loss during menstruation or even scanty blood loss during inter -menstrual period is '*Asrigdara*'.

**NIDANA OF ASRIGDARA<sup>[17]</sup>**

*Nidanas* that causes vitiation of *Doshash* and result *Asrigdara* comes under following category -

- 1) *aharaja* ( related to diet )
- 2) *viharaja* ( related to life style )
- 3) *manasika* ( related to psychology )
- 4) *anya* ( other causes )

**1) Causes related to diet :** the etiological factors related with dietary condition are over indulgence of *ruksha*, *sheeta* etc. diets provokes *vata*; *amla(sour)* , *ushna(hot)*,

*tikshna(pungent)* etc. provokes *pitta* & *guru(heavy)*, *madhura(sweet)*, *Snigdha(oily)* etc. provokes *kapha dosha*.

**2) Causes related to life style:** *Atimaitihuna*, *Atiyanavarohana*, *Atimargagamana*, *Atibharavahana*, *Atidivaswapana*

**3) Causes related to psychology:** *Atishoka*, *Atisantapa*, *Adhayana*.

**4) Other causes:** *Garbhapata*, *Abhighata*.

### **PATHOPHYSIOLOGY OF ASRIGADARA<sup>[18]</sup>**

Good understanding of pathogenesis (*Samprapti*) is very essential for early diagnosis, prognosis and for adopting preventive and treatment measures. *Samprapti* is the process of manifestation of the disease. *Samprapti* is the procedure in which the *dosha* get vitiated and the way in which they manifest the disease. As per *Ayurveda Samprapti* of *Asrigadara*, the woman who consumes excessive salty, sour, hot, *vidahi* (producing burning sensation) and unctuous substance, meat of domestic, aquatic and fatty animals, *Krishara* (made up with rice and pulses) *payasa* (rice cooked with milk and sweetened) curd, *shukta* (vinegar), *mastu* (curd water) and vine, her aggravated *vayu*, with holding *rakta* (blood) which get vitiated due to above cause, increases its amount and then reaching *raja* carrying vessels (branches of ovarian and uterine arteries) of the uterus, increases immediately the amount of *raja* (*Artava* or menstrual blood) in other words the increase in amount of *raja* is due to its mixture with increase blood. This increase in menstrual blood is due to relative more increase of *rasa*, in this condition, excessive blood is discharged hence it is known as *pradara*.

From the these pathology it can inferenced that *chala*<sup>[19]</sup> *guna* of *vayu* along with *sara*<sup>[20]</sup> and *drava*<sup>[21]</sup> *guna* of *pitta* plays an important role in forming the basic *samprapti* of *Asrigdarachalaguna* is for increase movement and *sharaguna* disturbs stability and causes depletion of *dhatu*s (tissue).<sup>[22]</sup>

***Drava guna*** – It increases the liquid part of *dhatu*.<sup>[23]</sup>

Entire process of the development of the disease can be summaries in the following ways – Because of various causative factors *tridoshas* get vitiated and leads to *Agni mandya* which leads to *rasaganivaishamya* and this again leads *vikrita rasa dhatu* formation. Hence, the *artava* i.e. *upadhatu* of *rasa* also get vitiated and *rakta*, due to its *rasabhavata* gets vitiated

and increase in amount by the *pitta prakopakanidansevan*, the *rasa* and *dravaguna* of *pitta* get vitiated. These factors affects the uterine vascular apparatus leading to uterine congestion and increasing uterine circulation along with this *pittavritaapanavayu* and its *chalaguna* leads to excessive and irregular bleeding which is termed as '*Asrigdara*'.

Vitiated *pitta* and *vata* in uterus causes disease known as *Asrigdara* it's sign and symptoms are very similar to Dysfunctional Uterine Bleeding (DUB). The pathology of DUB that is established by various modern tool and technique is very much similar to that of *samprapti* of *Asrigdara* that was explained approx 2000 year ago.

Dysfunctional Uterine Bleeding (DUB)<sup>[24]</sup>, According to european society of human reproduction and embryology is 'excessive bleeding (excessively, heavy, prolonged or frequent) of uterine origin which is not due to demonstrable pelvic disease, complication of pregnancy or systemic disease. It is of two types-

**1. Anovulatory DUB** - disturbed HPO axis and unopposed oestrogen are found in this condition. Unopposed oestrogen has direct effect on the uterine blood supply by reducing vascular tone<sup>[25]</sup> and possibly an indirect effect through inhibiting, inhibitory vasopressin<sup>[26]</sup> release leading to vasodilation and increase blood flow. Excessive endometrial proliferation and hyperplasia with increased and dilated draining veins and suppression of spiral arterioles with increased fragility. Unopposed oestrogen increases expression of Vascular Endothelial Growth Factors which may contribute to disturbed angiogenesis.

Endometrium exposed to prolonged unopposed oestrogen, synthesise less Prostaglandins and high proportion of PGE than PGF, increase synthesis of Nitric oxide (endothelium derived relaxing factor).

**2. Ovulatory DUB** – No disturbance of HPO axis and no hormonal imbalance is there.

Main defect appears to be in the control of process regulating the volume of blood lost during menstrual breakdown of endometrium, primarily the process of vasoconstriction and haemostasis.

Reduced level of endothelin causes increase in blood volume. Endometrial PG release is greatly influenced by circulating steroid level, increase in PG release and disproportionate rise of PG E2 causes vasodilatation and PG I 2 causes reduce platelet aggregation and increase fibrinolytic activities. Mast cell degranulate at menstruation, there is increase

number of substances including heparin, which reduces fibrin formation and histamine which causes endothelial cell contraction, resulting in increase gap between the vascular endothelial cells and both transudation and blood cell loss.<sup>[27]</sup>

## DISCUSSION

Vitiated *Doshas* in *Asrigdara* ( DUB ) expressed at endometrial level i.e. altered vascular tissue division, cell interaction, constriction and dilation of blood vessels are function related to altered *vata* and increase enzymatic activity and inflammatory response is related to altered functioning of *pitta*. In *Ayurveda*, causes related to diet, physiology and psychology are given i.e. *katu*(pungent) *rukchha*(dry), *amla* (sour) *tikchhna*, (spicy), *snigdha* (oily) meat and dairy product, excessive sexual intercourse, depression, excessive sleeps in day time, Improper eating habits disturbing *doshas* in body. Disturbs HPO axis of body because of stress, causes menstrual abnormalities.

Nutritional deficiency, Physiological and Psychological stress causes depletion of adrenal gland (source of body progesterone) and depletion of body progesterone.

Fast food, food that is heavy to digest and acidifying food, increases body estrogens by decreasing its excretion from body.

In *Asrigdara*, *Ayurveda* opines that vitiated *Rakta* get increase in its amount and goes in uterus and *rajovaha shiras*.

Increased uterine blood supply and increases blood flow in DUB is because of response of unopposed oestrogen.

*Vata* is the prime vitiated *Doshas* in all *yoni vyapad* and *rajo doshas*, and it should be treated first.

Modern science also except that regularization of HPO axis is very important in female disorder that influences hormonal level of body and function of HPO axis are very similar to that of *vata*.

In treatment of *asrigdara pitta vatashamak* treatment has advice.

In DUB, disturbed fragility with increase activity of lytic enzymes are seen and these activities are due to vitiated *vata and pitta* in body so *vata pitta shamak* drugs describe in



*Asrigdara* will be helpful, drugs described in *Asrigdara* can be assessed having their effect on altered endometrial response by using modern research technologies based on immune histopathology and Biochemical markers and help humanity in safe and holistic way.

## CONCLUSION

By using modern tools and technologies scientists have identified the changes those are taking place in endometrium i.e. altered inflammatory responses and altered vascular growth but there is no concept about the root factors which are responsible for it as described in Ayurveda in the form of *nidana*. Unless and until these factors are present the disease cycle can not be stopped, as in modern medical science Hormonal treatment advised for Dysfunctional Uterine Bleeding is nothing to do with root cause of disease. From above discussion it can be concluded that Endometrial response in Dysfunctional Uterine Bleeding are very similar to function of altered *pitta* and *vata* and *Ayurveda* having the concept of *Nidana parivarjana* (avoidance of cause) and having the treatment to pacify altered *pitta* and *vata* and can give safe and better treatment in case of heavy menstrual bleeding and it can be suggested that use of modern immune-histopathological knowledge and Biochemical markers can be done to establish the expression of Endometrial response by the specific *nidana* responsible for *Asrigdara* along with this pharmacodynamics of drugs described for *Asrigdara* in *Samhitas* can be established in better way.

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