

**A CONCEPTUAL REVIEW ON A UNIQUE PANCHKARMA THERAPY YONIGATA
SNAIHIK UTTARBASTI****Dr. Sonal Vijay Potdar*¹, Dr. Vandana Avhad² and Dr. Maya Gokhale³**¹(MD.Sch Panchakarma), ²(Associate Professor Panchakarma Dept.), ³(Prof. and HOD Panchakarma)
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ABSTRACT

In Ayurveda Panchakarma for *Striroga*, *Basti Chikitsa* (Enema procedure) is the specialized treatment. *Basti* is *Pradhana* due to its different actions having both the *Shamana* and *Shodhana* effect. The vagina is a potential route for drug delivery through the use of specifically designed carrier systems for both local and systemic applications. *Uttarbasti* has been well highlighted in classics for Genito-urinary disorders. In this study an attempt has been made to review *Yonigata Uttarbasti* through ancient texts to understand the concept of *Yonigata Snaihiik Uttarbasti*.

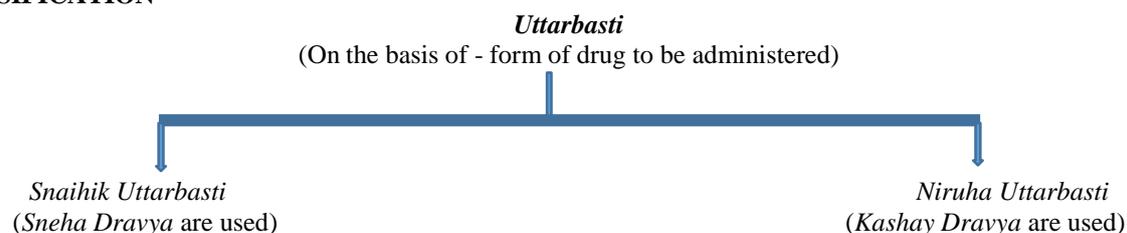
KEYWORDS: *Uttarbasti*, *Yonigata Vata*, *Snaihiik uttarbasti*, Intra-vaginal drug delivery.**INTRODUCTION**

Ayurveda is unique science of life. There are many local and systemic acting procedures described in ancient texts of Ayurveda specially for the *Striroga*. These include mainly *Yonidhavan* (cleaning of vagina), *Yonidhupana* (vagina fumigation), *Yonilepana* (vagina painting), *Uttarbasti*^[1] (insertion of medicated oil, *Ghrita* or liquid in vaginal passage), *Yonivarti* (vaginal suppository), *Yonipuran* (vaginal packing), *Uttarbasti*^[2] is one of them, it directly works locally but it effects systemically.

In this study *Yonigata Snaihiik Uttarbasti*^[3] is reviewed through Ayurveda ancient texts and discussed with respect to definition, route of administration, duration of time, indications and Standard Operating Procedure (SOP) of *Yonigata Snaihiik Uttarbasti*.

AIMS AND OBJECTIVES

- To study *Yonigata Snaihiik Uttarbasti* from *Bruhatrayi*
- To develop a standard operating procedure for

CLASSIFICATION→ On the basis of form of *Dravya* to be administer - used)**Snaihiik Uttarbasti**(Where only medicated *Sneha Dravya Ghrita* or oil is*Yonigata*^[4]
(Vaginal route) *Uttarbasti*.**METHODOLOGY**

Information of *Uttarbasti* mentioned in ancient texts of Ayurveda, after studying the *Bruhatrayi*, definition of *Uttarbasti* and its indications has been extracted from *Charaka Samhita* and *Sushruta Samhita*. Classification of *Uttarbasti* based on drug of administration studied from *Ashtang Sangraha Sutrasthana*. Knowledge of doses of *Sneha* has been obtained from *Bruhatrayi* and instruments from *Charaka Samhita*. SOP modification has been developed with the help of Dr. Vandana Avhad ma'am and Dr. Maya Gokhale ma'am.

→ On the basis of route of administration – *Yonigata*

Uttarbasti

(Dravya through vaginal route)

Indications^[5,6,7]

Uttarbasti is potent Chikitsa for

- Yoniroga Yonivyapada (Gynecological disorders)
- Asrugdara (Abnormal uterine bleeding)
- Rajo-dushti, rajo-nasha (Amenorrhoea)
- Kashta-artava (Dysmenorrhoea)
- Vyandhyatva (Infertility)
- Jite vayu (To pacify vata dosha)

Contraindications

Uttarbasti should be avoided in some cases such as

- Hypersensitivity
- Menorrhagia
- Retrovaginal fistula
- Vaginitis
- Cervicitis
- Sexually transmitted diseases
- Carcinoma of genitals.

In condition - genital tract of virgin girls Uttarbasti is contraindicated.

Time of administration^[8]

The appropriate time for administration of Uttarbasti is *Rutu kala* means immediately after cessation of menstruation. As *Yoni-Garbhshay Mukha* (Vaginal and uterine orifices) are wide open at that time and the *Sneha Dravya* administered are easily absorbed. It should be administered in the morning time.^[9] According to *Ashtanga Sangraha*, in emergencies it can be performed at any time irrespective of *Rutu kala*.

Procedure [Karma Vidhi]Every procedure of *Panchakarma* is carried out in three

- Doses of *Sneha*^[16,17]

According to	Uttarbasti Sneha Matra	In (ml)
Charaka Samhita	½ Pala	24ml
Vagabhata Samhita	1 Shukti – 1 Prakuncha	24ml – 48ml
Sushrut Samhita	1 Shukti	24ml – 48ml
Sharangdhar Samhita	1 Pala	48ml

2) Pradhan karma

The patient is made to lie down supine position

↓

Fold her legs at knee (lithotomy position)

↓

Disposable syringe fitted with angulated catheter containing the prescribed

↓

Dravya (*Sukhoshna Sneha*-10-20ml) is taken (Care should be taken that all air in the syringe and catheter is removed before inserting into vaginal passage)

↓

steps *Poorvakarma*, *Pradhana karma* and *Paschat Karma*.

A) Poorvakarma

- (1) Preparation of materials and instruments
- (2) Preparation of patient

1) Preparation of materials and instruments^[10-15]

Requirements- In modern era used small sized rubber catheter no.10 and IUI cannula as karnika. Perineal towels, draw sheets, cap, mask, gloves, gauze piece, cotton pads, *Yonipichu* and steel bowl.

Instruments- Sponge holding forceps, anterior wall retractor, towel clips, disposable syringe (60ml) with nozzle.

2) Preparation of patient

1. ABHYANGA should be done for ten minutes on the Katipradesha, Adhoudara, Prushtha and Parshwa Pradesha. Abhyanga has Vatashamaka action thus helps to relax the pelvic organs.
2. SWEDANA should done to same parts for about ten minutes with Nadi Sweda. The Swedana Karma relieves undue stiffness and pain in the pelvic region. Vatanuloman causing abdominal muscle relaxation. Both Snehana and Swedana may help to relieve pain during the procedure of Uttarbasti.
3. Empty the bladder.
4. Examination of vitals like pulse, B.P. etc. should be done.
5. Patient should lie in Lithotomy position.
6. The genital organs should be painted with antiseptic solution savlon. It helps in wall relaxation and smoothening of vaginal orifice.
7. Covered with perineal towels and clips applied to fix the covering.

Basti Netra lubricated with *Sneha* is carefully introduced into the *Apathymarga* in the direction of vertebral column

↓

Medicated *Sneha* (10-20ml) should be administered into the yoni by gently pressing the *Putak*.

↓

Yonipichu is inserted in vaginal orifice to prevent outside leaking of *Bastidrava* (*Sneha*)

3) Pashchat Karma

Must watch and observe the medicine expelled out or not

after procedure and then keep a sterilized gauze piece into the vagina.

- 1) Give head low position for 15 minutes on the procedure.
- 2) Vitals like B.P., Pulse etc. should be checked.
- 3) Hot water bag for *Swedana* over the lower abdomen should be given for pain relief.

Duration of *Yonigata Snaihik Uttarbasti*^[18]

It is very important for absorption of drugs. More retention of the medicament within the vaginal cavity, more will be the absorption for this reason, it is advised to perform *Uttarbasti* twice, thrice or more at a stretch in a day so that the medicine stays for more time in the contact of the surface.

Probable mode of action

Ideality of intra vaginal drug delivery system^[19]

- Component should melt at vaginal temperature i.e. at 36 °C,
- Intra-vaginal drug delivery device should be non-toxic and non-irritating
- The preparation should have wetting and emulsifying properties.
- It should have proper viscosity, so avoid the leakage of preparation from vagina (in case of semisolid dosage form).

Advantages of intra vaginal drug delivery system

- ✓ Prolonged release,
- ✓ Minimal systemic side effects,
- ✓ An increase in bioavailability, Use of less total drug than an oral dose, First- pass metabolism can be avoided,
- ✓ Contact with digestive fluid is avoided and degradation of drug is minimized.
- ✓ Nausea, vomiting, emesis induced through oral administration is avoided.
- ✓ Quick onset of action.

Anatomically probable mode of action^[20]

Vagina is described as slightly shaped fibro muscular collapsible tubes between 6 to 10 cm long extending from cervix of the uterus. The vaginal wall consists of three layer, muscular coat and tunica adventia. The surface of the vagina is composed of numerous folds, which are often called rugae.

The vagina has an excellent elasticity because of presence of smooth elastic fibers in the muscular coat. In the walls of vagina arteries, blood vessels and lymphatic vessels are abundantly present. Drug absorbed from the vagina does not undergo first- pass metabolism because blood leaving the vagina enters the peripheral circulation via a rich venous plexus, which empties primarily into internal iliac veins.

The blood cells are abundant in vaginal wall. This vascularity of vaginal tissue is responsible for first uterine pass effect, or direct preferential vagina to uterus

transport. The first uterine pass effect can be defined as a preferential transfer of a vaginally administered drug to the uterus. A significantly higher concentration of progesterone in uterus after vaginal administration as compared to oral administration can be taken as an evidence for the above findings.

Before being able to understand how the drugs are absorbed through vaginal route, it is important to have an insight over the vaginal histology. The vaginal histology mainly consists of four distinct layers:

1. **Superficial layer:** composed of non-secretory stratified squamous epithelium.
2. **Lamina propria or tunica:** made of collagen and elastin, which contains a rich supply of vascular and lymphatic channels.
3. **Muscular layer:** consists of smooth muscle fibers running in circular and longitudinal directions.
4. **Final layer:** consists of areolar connective tissue and a large plexus of blood vessels.

The drug transport across vaginal membrane mainly takes place by three major ways:

- a) **Transcellularly (across epithelial cells)** via concentration dependent diffusion through the cells.
- b) **Paracellularly (between adjacent epithelial cells)** mediated via tight junctions.
- c) **Vesicular or receptor mediated transport.**

Drug absorption from vaginal delivery system happens in two steps: dissolution in vaginal lumen and membrane penetration. Cervical mucus acts as a permeability barrier in vaginal absorption. As vaginal fluid is watery in content, any drug intended for vaginal delivery requires a certain degree of solubility in water.

Probable Mode of Action

Purva Karma

Uttarbasti deals with *Apan Vayu* as the nearby situated organs. *Snehan* and *Swedan* prior to *Uttarbasti* does *Vata Anuloman* due to *Snehan* and *Swedana* prior to *Uttarbasti* relax the abdominal muscles. Good relaxation is very important for *Uttarbasti*, so that vaginal passage does not get irritated by the instillation of medicine and also decrease the pain during and after procedure. *Yoni Prakshalana* does prior to *Uttarbasti* with *Kwath* of antiseptic nullifies the possibility of any type of infection as a complications.

Pradhan Karma

Mode of action of *Uttarbasti* can be understood in two ways.

- Local effect of *Uttarbasti*

Effect of *Uttarbasti* will depend on various points like methods, instrument and drug used etc. If the medicine is put in cervical canal it may act more on the cervical factors. For the factors like cervical stenosis, a *Katu Ushana Taila* based medication can be more useful, while for increasing secretion of mucus from cervical

glands. *Uttarbasti* may also stimulate certain receptors in the endometrium leading to correction of all the physiological processes of reproductive system. Intra-vaginal *Uttarbasti* may also facilitate the absorption of drug as posterior fornix has a very rich blood supply and it may also act as reservoir of drug.

Systemic effect of *Uttarbasti* after absorption it seems that Ayurveda had a clear distinguishing approach between oral and parenteral route of drug administration from the very beginning.

Uttarbasti may act by stimulating some neuroendocrine pathways after getting absorbed. Systemic effect of *Uttarbasti* also be understood with the help of systemic biology concept. Systemic biology is the latest concept emerging and getting accepted in modern science. This concept believes in the holistic approach and believes that all the bodily systems and organs are interconnected at molecular level. And any change in any organ molecular level will certainly change the other. The effect of *Uttarbasti* drugs have on the physiology of reproductive system, it will definitely involve the physiological functions.

DISCUSSION

The effective area of contact: (Area of vaginal cavity is approximately 60cm². The hydrophilicity and viscosity of formulation influences the extent of its spreading and distribution throughout the vagina.

Contact time: It is very important for absorption of drugs. More retention of the medicament within the vaginal cavity, more will be the absorption, for this reason, it is advised to perform *Uttarbasti* twice, thrice or more at a stretch in a day so that the medicine stays for more time in the contact of the surface. And for this purpose, medicated ghee or oil preparations are better than the decoction, etc. as these have adherence property with the surface. Prolonged contact with the absorbing surface will cause better drug absorption. In research works for vaginal drug delivery, attention has been paid on various polymers which are used in hydrogel which provide bio adhesive property to the vaginal formulations, so that the formulation remains on vaginal tissues for 3 to 4 days". It justifies the practice of *Uttarbasti* to continue for three consecutive days. Concentration Rate of absorption via passive diffusion can be increased by increasing drug concentration in vaginal fluid.

As, not a single research work has been done to explore the mode of action of *Uttarbasti* in spite of its higher clinical efficacy, a huge task remains for the scientists to discover. Vagina as a route of drug delivery is having several critical clinical obstacles as low bioavailability, gender specificity, culture sensitivity, personal hygiene, local irritation, influence of sexual intercourse; yet it is the best route to treat several gynecological problems and female infertility.

According to Ayurveda Mode of Action

Uttarbasti has *Vata Shamak* property due to *Snigdha Guna* of *Ghritha* or *Taila*. Lukewarm *Ghritha* or *Taila* used for *Uttarbasti* enhances blood circulation of vagina, cervical canal and endometrium causes better absorption of drug due to *Suskshma Guna*. Most commonly the medicated *Ghritha* and *Taila* are indicated for *Uttarbasti* in our *Ayurvedic* classics. *Ghritha* is one of four components of '*Mahasneha*' which has special property of '*Sanskaranuvartini*' due to this it can adapt medicinal property of other drugs without losing its own.

In *Ayurvedic* classics all the twenty types of *Yonivyapada* are mainly caused by *Vata Dosha*. Due to *Suskshma Guna*, *Sneha* enters micro channel and by *Snigdha Guna* it pacifies *Vata Dosha*. Due to this drug used for *Uttarbasti* mostly prepare with oil base. It shows *Uttarbasti* have good efficacy to normalize vitiated *Vata Dosha* which is primarily responsible for all *Yonivyapada* and *Striroga*.

CONCLUSION

Yonigata Snaihik Uttarbasti is advised in various *Yonivyapada* and *Striroga* as local and systemic treatment in *Ayurvedic* texts. It is advised to give *Yonigata Snaihik Uttarbasti* in *Tritiya Avarta* of *Tryavarta Yoni* which can be considered as vagina.

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