

Role of Vrushya Drugs on Cervical Mucus in the Management of Infertility

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Abstract:

Infertility is global issue. On an average 8-12% of couples are affected by infertility worldwide. Infertility is defined as a failure to conceive within one or more years of regular unprotected coitus. Conception depends on the fertility potential of both the male and female partner. There are different causes for male and female infertility. Common causes for female infertility are tubal factors 25-35%, ovarian factor 15-25%, uterine factor 10% and cervical factor 5%.

Even though cervical causes contribute only 5% in infertility, a small group of women may have an unhealthy condition of cervix like abnormal mucus production or a prior cervical surgical procedure or chronic cervicitis which can lead to disturbances in the production of cervical mucus in which the sperm cannot pass through the cervical canal. Cervical mucus is necessary for allowing the sperm to swim freely through the cervix and supports the sperm in reaching the ova.

Ayurveda has clearly stated the four essential factors or pre-requisites necessary for conception, one of them being ambu i.e. nourishing factor. In the classics many yoga's like phalaghrita, kalyanakaghrita and certain vrushya drugs, even stanika chikitsa has been explained which will help to maintain the fertile cervical mucus. The present literary study thus focuses mainly on interpreting the ambu with respect to cervical mucus on the basis of modern scientific knowledge.

Key words: Ambu, Cervical Mucus, Infertility, PhalaGhrita, Vrushya drugs, Kalyanakaghrita

Introduction:

“The news of conception and feeling of becoming a mother gives an unexplained contentment to every woman's heart. It is an innate desire of every women to hold her baby in arms and bestow upon it, her affectionate love, generously.”

In today's progressive and competitive era the women is annoying to participate equally with man and to withstand in this competition and to achieve those goals, she has certain difficulty compare to man. These problems vary from women to women.

In case of complexity about the reproduction, the woman is considered to be more responsible than the male, as she has to experience the reproduction & give birth to a child. For those she should be in the healthy condition.

Some of the causative factors which hamper the reproduction in women are classified as tubal factors 25%-35%, ovarian factor 15-25%, uterine factor 10% and cervical factor about 5%.

To treat any ailment one should be sure of the causative factor, So, even though cervical causes contribute only 5% in infertility, a small group of women may have an unhealthy condition of cervix like abnormal mucus production or a prior cervical surgical procedure or chronic cervicitis can lead to disturbances in the production of cervical mucus in which the sperm cannot pass through the cervical canal.

Ayurveda being an excellent remedy has clearly stated the four essential factors (pre-requisites) which are necessary for *garbha dharana* (conception) viz. *Rutu*, *Kshetra*, *Ambu* and *Beeja*. Each of these factors has its own importance; *ambu* is one of the factors which is considered to be an nourishing factor. Vitiation in this factor produces *ambudusti* which may lead to *vandyatva*. Hence proper functioning of *ambu* is very essential.

In present paper, we are discussing about the effect of *vrushya dravyas* which are helpful to overcome the *ambu dushti* by giving *snehadi karmas* externally & internally through maintaining the *kleda* property of *ambu* (cervical mucus).

Ambu:

To some extent this *ambu* can be indirectly correlated to cervical mucus based on some

reference. i.e. अम्बु पुनराहारपाकजो व्यापी रसधातुः - *dalhana teeka su.sha.2/33*. Here in generally the *karma* of *rasa dhatu* can be taken as *tarpana*, *vardhana*, *dharana*, *snehana*, *jeevana*, *prinana of sharira*. *Snehanama kledakarakam* which is achieved by the *gunas* of *rasa dhatu* i.e *drava* and *snigdha guna*.

So, *ambu* which is told as *rasa dhatu* can be correlated to cervical mucus at the level of *garbhashaya griva*.

All the three *Doshas* play an equally important role to produce the secretion of the cervix in normal physiological condition and being *apana sthana*, cervix helps in the ruling of *apana karma* i.e. *Shukra Pravesha*, *Garbha niskramana kriya* and *artava pravriti karma*.

Role of dosha in maintaining fertile cervical mucus:

The mucosal function of cervix can be taken as *Kledana Karma*, which occurs due to balanced condition of *Dosha*, *Dhatu* & *Agni*. *Dravatva* and *Snigdhatva* are necessary for these *Kledana*.

Cervical mucus becomes *drava* by *drava guna* of *prakrita pitta* and *snigdha guna of prakrit kapha* and *prakrit vata* helps in its proper secretion.

नियतं दिवसेऽतीते सङ्कुचत्यम्बुजं यथा | ऋतो व्यतीते नार्यास्तु योनिः संत्रियते तथा ||९|| (Su. Sha. 3/9).

As the flower of lotus closes after sunset, similarly, after *Ritukala*, the *yoni* gets constricted and does not accept *Shukra* or permits the entry of *Beeja* (Sperm) into the uterus.

Relation of Cervix with *Dosa*, *Dhatu* and *Mala*:

Dosha → *Apana* (*Vatakshetra*)

Dhatu → Mamsa with Rasa-Rakta Dhatu

Importance of cervical mucus:

Cervical mucus is necessary for allowing the sperm to swim freely through the cervix & the production of the healthy cervical mucus is vital for conception. Fertile cervical mucus nourishes the sperm, protects them from the natural acidity of the vagina, and guides them toward the ovum, gives nutrition and initiates capacitation.

Fertile cervical mucus contains increased salts, sugar and amino-acids (to nourish sperm) and also increased fluid (to keep cells isotonic). i.e. Up to 10x increase in mucus volume. Highly-fertile mucus is 98% water (*dravata*)-Transparent, glistening, slippery (*snigdha*), stretchy.

Importance of ambu in classics:

Acharya Susruta has explained that the use of *kshara* is contraindicated during *rutukala* (*su.su* 11/28). And Acharya kashyapa has also described that the *nasya* is contraindicated as it causes *yonishosha* (dryness of vagina), which reduces *kledata bhava* (which is necessary to maintain healthy environment of cervix-healthy cervical mucus production) (*ka.sa.si.4/7*).

Role of vrushya dravyas in maintaining fertile cervical mucus:

Shukra artava dosheshu Samanya chikitsa:

Sarveshu cha sukra artava dosheshu stree pumsou snehadi karma.....A.S.Sh1/37

snehadi karma may be *Bhaya* in the form of *sthanika yoni pichu*, *utarabasti* and *Abhyantara* in the form of *shamanangasneha* or *shodhanangasnehapana*.

Properties of *vrushya dravyas*: यत् किञ्चिन्मधुरं स्निग्धं जीवनं बृहणं गुरु हर्षणं मनसश्चैव सर्वं तद्वृष्यमुच्यते॥३६॥ (*cha.chi.2-4/36*)

Dravyas which are possessing *madhura*, *snigdha*, *jeevaniya*, *brumhana*, *guru gunas* and which produce *harshana* in mind are generally *vrushya dravyas*. These qualities help in maintaining *kleda bhava* which is required for *ambu*.

Hence use of *vrushya dravyas* may help in making cervical mucus as sperm friendly mucus or fertile mucus. Following table shows the some of *vrushya dravyas* which helps in maintaining healthy cervical environment.

Table 1: Rasapanchak of Drugs

<i>Dravyas</i>	<i>Guna</i>	<i>Rasa</i>	<i>Vipaka</i>	<i>Virya</i>	<i>Other</i>
<i>Shatavari</i>	<i>Guru, Snigdha</i>	<i>Madhura</i>	<i>Madhura</i>	<i>Shita</i>	<i>Balya, Vrushya</i>
<i>Ashwagandha</i>	<i>Laghu, Snigdha</i>	<i>Madhura</i>	<i>Madhura</i>	<i>Ushna</i>	<i>Vajikara, Balya, Brumhana</i>
<i>Kumari</i>	<i>Guru, Snigdha, Picchila</i>	<i>Madhura, Katu</i>	<i>Tikta</i>	<i>Shita</i>	<i>Vrushya, Balya, Brumhana</i>
<i>Masha</i>	<i>Guru, Snigdha</i>	<i>Madhura</i>	<i>Madhura</i>	<i>Ushna</i>	<i>Balya, Shukrala, Brumhana</i>
<i>Putrajeevaka</i>	<i>Guru, Picchila</i>	<i>Madhura</i>	<i>Madhura</i>	<i>Shita</i>	<i>Vrushya, Garbhakar</i>
<i>Kokilaksha</i>	<i>Guru, Snigdha, Picchila</i>	<i>Madhura</i>	<i>Madhura</i>	<i>Shita</i>	<i>Vrushya, ShukraShodana</i>
<i>Yastimadhu</i>	<i>Guru, Snigdha</i>	<i>Madhura</i>	<i>Madhura</i>	<i>Shita</i>	<i>Shukrala</i>
<i>Kharjura</i>	<i>Guru, Snigdha</i>	<i>Madhura</i>	<i>Madhura</i>	<i>Shita</i>	<i>Vrushya, Balya, Brumhana,</i>

					<i>Shukrakrauta</i>
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There are some *yogas* explained in classics include *jeevaniya*, *brumhaniya dravya* etc. will help in maintaining the healthy environment of *yonis* such as *shatavari ghruta*, *phalaghrita*, *kalyanaka ghruta* These *ghritas* can be administered internally and also can be used in the form of *yonipichu* and for *uttarbasti*.

Some of the activities of these herbs:

Shatavari : It is useful for infertility, sexual debility, decreased libido, threatened miscarriage, menopause, and leucorrhoea also has the ability to balance pH in the cervical area. It nourishes and regenerate the epithelial cells, prevents the cells from infection, so helps in proper cervical mucus production.

Action of Phalaghrita on Cervical Mucus:

Amount: Anabolic action of Phalaghrita increases more secretory units and proper estrogenic effect on cervical epithelium due to the proper function of receptor mechanism, thus the cervical mucus increases in amount.

Cellularity: Pus cells and leukocytes are decreased by anti-infectious properties of drug as well as the debris is decreased by anabolic properties, thus the mucus becomes clear.

pH: Sheeta and Mrudu guna inhibit the ushna and Tikshna guna of Pitta and decrease acidic mucus.

Kumari: kumari taila is effective in removing the tubal blockage; along with this it may also be effective for other factors of female infertility & menstrual disorders and other hormonal dysfunction by influencing the secretion of estrogen and progesterone to maintain the healthy condition of uterus and cervix.

Conclusion:

Cervical mucus (*Ambu*) is one of the main factors required for the conception in terms of nourishment and transport media concern. *Shatavari*, *kumari*, *phalagruta* all these drugs will be helpful in maintaining the normal environment of cervix necessary for conception.

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