ABSTRACT
Infertility is a big problem of spouse nowadays. Conception depends on the fertility potential of both male and female partner only when there is unprotected sex for one year. In Ayurvedic text like Charak Samhita, Sushruta Samhita, Rasratna samuchya and Hareet Samhita, many types of bandhyatva have been described. We can correlate infertility with bandhyatva. Acharya Sushruta described four essential factors for conception i.e. ritu (fertile period), kshetra (Fertile uterus), ambu (female sex hormone) and beeja (viable ovum and sperm). In the present study all the factor were taken up for clinical drug trial. Apamarg is selected for the study as described by Acharya Shodhal in Gad Nigrah. Apamarg is the lord of all herbs and it cures Anapatya as described in Atherva Veda and also in Gad Nigraha. Hence, Apamarg is selected for clinical trial.

KEYWORDS
Ritu, Kshetra, Ambu, Beeja, Apamarg, Bandhyatva
INTRODUCTION

Infertility and its treatment can have serious implications on psychological, physical, economic, and social well being for both spouses. Infertility has been ranked as one of the great stressors in married life. It is like a chronic illness that uses a large amount of couple’s resources and involves in the expenditure of a considerable amount of time, money, physical and emotional energy. In today’s world, infertility is often caused by pressure of modern altered life style and the stress they generate. It is a very stressful condition when a women failure to conceive & that condition describe very beautifully by Acharya Charaka in Charaka Samhita.

In Ayurveda infertility is described under the heading of bandhyatva. It defines bandhyatva as inability to achieve child even after conceiving. Acharya Sushruta used term bandhya in yonivyapad² and Acharya Charaka described bandhya under beejansh dusti³. However, conception does not occur due to beejansh dusti and arta vavyapad but there are other factors responsible for conception. Conception depends on the fertility potential of both the male & female partner hence the problem of infertility is not directly related to male & female but both partners are equally responsible.

Infertility is defined as even after having normal unprotected coitus during appropriate period of menstrual cycles. Primary infertility denotes that patient who never conceives⁴. Secondary infertility⁵ indicates previous pregnancy but failure to conceive subsequently within one or more year of unprotected regular intercourse. A successful pregnancy is a multistep event. Pregnancy may not happen, even if one of the event or condition is not met or not met in right amount of the time. For successful pregnancy there are four factors as described in Sushruta Samhita⁶. Factors are ritu, kshetra, ambu and beeja. In which ritu is symbol of fertile period, kshetra is symbol of genital tract, ambu symbolizes proper nutrient fluid, clarity or normalcy of hridaya or psychology and beeja symbolizes shukra and artva (semen).

AIM

To discuss the role of apaamarg mula kalka in the management of bandhyatva.

Ethical committee approval no is UAU/35/2015.
MATERIALS AND METHODS

A clinical study was conducted on clinically diagnosed 30 patients of infertility in females in P.G. Department of Prasuti and Striroga, Rishikul Govt. Ayurvedic College and Hospital, Haridwar, Uttarakhand. All 30 patients were selected for Apamarg mula kalka in the management of female infertility. The route of ayurvedic medicine was oral.

In all factor we selected a women having normal ritu kala with any abnormal factor (ovarian, tubal, uterine, cervical) which hindered conception.

Criterion for selection of drug

The main causative factor for infertility is Vata, for which a drug having ability to pacify the vitiated Vata is required. Apamarg contains istikt, ushna, katu, kaphanashak, arsh, kandu, udar roganasak ,rakta , hridya, grahi, vamankarak. Due to these properties Apamarg is used for treatment of infertility.

Selection of cases

Entire study was done in Dept of Prasuti Tantra and Striroga, Rishikul Govt. Ayurvedic College and Hospital, Haridwar, Uttarakhand. Patient coming with the complaint of vandhyatva having regular unprotected coitus from at least one year, without any specific organic pathology were taken for detailed study.

Complete history of both spouse were taken and general, systemic and gynaecological examination were completed.

Inclusion criteria

- Patient of child bearing age having complained of failure to conceive within one or more years even after regular unprotected coitus.
- Patient of infertility having normal anatomy and physiology.
- Patient having primary and secondary infertility will be included for the study.
- Patient having infertility because of ovarian factor /cervical factor /tubal factor /uterine factor.
- Unexplained infertility.

Exclusion criteria

- Patient having any urogenital infection.
- Patient having history of excessive menstruation.
- Patient having chronic debilitating disease, STD, PID, DM, Hepatitis B, T.B, Malignancy.
- Patient having congenital anomaly, chromosomal defect.
- Associated disorder like endometriosis, infection, and endocrinopathies.
Uterovaginal canal surgery.
Immunological problem.
Patient having organic heart disease, chronic renal diseases.
Patient having evidences of vaginal infection, cervical tear or chronic infection.
Patient having undue elongation of cervix, abnormal uterine size, position & mobility.
Presence of unilateral , bilateral adenal masses – fix or mobile
Presence of nodules in pouch of douglus.

Clinical Examination
Detailed physical examination of all the system of the body with special attention on the condition of reproductive system was performed.
Examination of cases was done under following headings:-
1. General examination: General condition of patient, B.P., P.R., Temp., R.R., anaemia, jaundice, cyanosis, oedema, lymphnode, clubbing or any other special signs were noted.
2. Systemic examination: Examination of R.S., CVS, CNS, GIT, urogenital system, liver, spleen, etc. was done.
3. Specific examination: Local examination of reproductive system was done in detail, P/S examination was done to know the condition of vulva, vagina, any discharge and condition of cervix.
P/V examination was done to know the consistency of cervix, its size, shape, mobility and consistency of uterus with condition of the adnexae.

Investigations
After detailed history and complete examination cases were subjected to following investigation –
1. Blood Examination:
   (a) Hb%
   (b) TLC
   (c) DLC
   (d) ESR
2. Urine Examination: For routine and microscopic examination.
3. USG: For condition of uterus and adnexa or for any other pelvic pathology and thickness of endometrium.

Method of treatment
1. Drug  Sweta Apamarg mula
2. Kashaya Kalpana Kalk
3. Drug doses according to Sharangdhar
4. Kalk 1tola (12 gram)/ day for 5 days after menses
5. Duration For 3 Month in 3 consecutive cycle

Probable mode of action of drug
Apamarg has property of sara guna which means easily mobile in all over body, tikshana guna means pittakaraka, kaphavatmanashan, deepan means agniverdhak property, kaph dosh and vata dosh nashak property and also kandu, shula, apchinashan property. Sarakguna of apamarg enhances the proper function of prakritapanvayu. Apanvayu is responsible shuk- rartvanishkrimanat, means the work of apan vayu is to regulate menses. With this property apamarg regulate menses & reduces pain during menses by normalising vata.

Tikshnaguna of apamarg enhances pitta which is responsible for artva formation. As we know artva is aagnay and according to samanya-vishesh sidhant apamarg enhances the formation of artva and normalize the quantity and quality of artva. Ushnaguna of apamarg promotes normal flow of menstrual blood i.e. ushna guna of apamarg is responsible formation of menstrual blood. Katu rasa of apamarg is responsible for following action as described by Acharya Charaka:

- Shonit sangha tbhinnati - It is responsible for anti-coagulant action of blood (menstrual blood).
- Margan-vivrunoti- By virtue of katu rasa apamarg is responsible for opening of channels & dilates the blood vessels.

Due to kaphnashak property it will clear all channel by removing margavrodh and due to ushna guna it normalizes vitiated vata. After normalising the vata and kapha dosha, it increases vitality power of reproductive organ and prepare kshetra for conception because kapha has an anabolic action on body. It acts as a uterine strengthen tonic.

CONCLUSION
The results were not satisfactory in reference to conception but drug apamarg has shown good results in increasing size of growing follicles. Follicular study shows that drug can act as initiating factor for increasing size of follicles. 6.66% follicles were small in size and unruptured. But after treatment, 13.33% follicles were normal in size which is improvement. 83.33% follicles were normal in size & unruptured which was improved up to 86.66%.
• 70% of patients had Vata-pitta Prakriti.
• 6.66% patient had vata-kapha prakriti. Apamarg is vata-kapha nashak and ushna, tikshana in property. Rasa of apamarg is katu and tikta which is responsible for normalize the vitiated vata-kapha. Apamarg showed good work on vata-kaphaj samprapti of infertility and women vata-kaphaj prakriti.
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