

**AYURVEDIC UTTARAVASTI PROCEDURE IN THE MANAGEMENT OF
INFERTILITY USING KIDRAKUMARI TAILAM: AN EVIDENCE BASED CLINICAL
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ABSTRACT

Infertility is defined as a person's biological incapacity to contribute to conception. The goal of this study was to determine the role of uttaravasti in tubal obstruction, PCOD, and premature ovarian failure, as well as to establish it as a safer and more cost-effective Ayurvedic therapeutic option. Unilateral or bilateral tubal obstruction PCOD and premature ovarian failure identified in hysterosalpingography (HSG) Ultrasonography were used to select patients and assess results. The study included 62 patients in the reproductive age range who had 62.50 percent PCOD and 37.50 percent bilateral tubal obstruction. The treatment was completed by 52 patients. Patients with active infections or chronic illnesses were excluded from the study. The Vata Kapha Shamaka and Lekhana characteristics of Kidra Kumari Taila were chosen. The dose of uttaravasti was 3- 5 ml per cycle, with two cycles in between (three days of uttaravasthi in each cycle). Following the conclusion of menstruation, uttaravasti was given to the patients who had been tested through haematological, urinary, and serological (HIV, VDRL, HBsAg) studies. In 80 percent of the patients, the tubal obstruction and PCOD were eliminated, and 40 percent of the patients conceived within the two-month follow-up period. According to the findings, uttaravasti with kidra kumari tailam is a highly effective therapy method for tubal obstruction, PCOD, and premature ovarian failure with no known side effects.

KEYWORDS: Infertility, Kidra Kumari Taila, PCOD, Ayurveda, Uttaravasti, Uterus.**INTRODUCTION**

Infertility is defined as the inability to conceive despite one year or more of unprotected intercourse between male and female. Infertile refers to a person who has this condition. Infertility can be caused by either the male or female partner, or both.^[1] Tests and investigations are used to confirm clinical oligospermia. The inability of a couple to conceive after one year or longer of unprotected intercourse, according to WHO.^[2] Infertility can be divided into two categories.

1. Primary infertility refers to couples who haven't gotten pregnant after having sex for at least a year without using birth control.
2. Secondary infertility describes couples who have been able to conceive at least once but are currently unable to do so.^[3]

Infertility can be caused by a variety of medical and mental causes. It could be due to issues with the woman, the male, or both. For most couples, reproduction is a simple and natural process. However, conceiving is extremely difficult for the same pair.^[4] Male infertility is diagnosed when both couples have been tested and

reproduction issues in the male partner have been discovered. Although there is no universal definition of female infertility, the NICE guidelines do. "A woman of reproductive age who has not conceived after one year of unprotected vaginal sexual intercourse in the absence of any known reason of infertility, along with her partner, should be offered further clinical assessment and inquiry." If the woman is 36 years or older, or if there is a known clinical cause of infertility or a history of predisposing factors for infertility, it is recommended that she see a fertility specialist sooner. Infertility is defined as a person's biological incapacity to contribute to conception. Infertility can also refer to a woman's inability to carry a pregnancy to full term.

There are various biological causes of infertility, some of which can be treated with medical intervention. Ayurvedic concept Vandhyatva is thoroughly discussed in the Atharvaveda, an ancient text. Vandhyata is a term used in Ayurveda to explain infertility. Vandhyatva is caused by an imbalance in the Artvavahasrotas, according to Ayurvedic teachings.^[5] Infertility, according to the Haritsamhita, is the biological inability of a

woman of reproductive age to contribute to conception, as well as the status of a woman who is unable to carry a pregnancy to full term. Because he has included Grabhasravi and Mrtavastha under the Vandhya categorization, Vandhyatvaas failure to have a kid rather than pregnancy. Vandhyaas is the consequence of Sonita's Pradusta Gabhasaya Bija Bhaga, according to Charaka and Vagbhata. In Vimsati yoni vyapat, Susruta, Madhavakara, and Bhavamishra quote Vandhya. Vandhyatvaa is one of the 80 Vata illnesses mentioned by Kasyapa. From the Vedas, Puranas, Caraka, Susruta, Astanga Sangraha, Astanga Hridaya, Madhava Nidana, Bhava Prakasa, Yoga Ratnakara, Kasyapa Samhita, Harita Samhita, Bhela Samhita, BasavaRajiyamand Rasaratnasamuscaya, and others, a comparative study of Sri vandhyatva's There is a detailed account of the Krmislike Durnama, which destroys Garbhasaya and causes female sterility. Garbhadhrana Vidhiin Atharvavada is also mentioned in the Yajurveda. Vandhya is defined by Sushruta, the renowned Indian surgeon, as a woman who has lost her Artava (menstrual fluid), resulting in ovulation failure or infertility. Vandhyatwa can be caused by congenital abnormalities and deformities of the female reproductive tract, according to Vagbhata.^[6-17] Bhela thinks exacerbated vata to be the cause of Vandhya (infertility). Vandhya, according to Haritha, is the failure to have a kid rather than pregnancy.

CLASSIFICATION OF VANDHYA

It is only Harita who described the 6 types of Vandhya.

1. Balya- Delayed puberty
2. Kakavandhya- One child sterility
3. Anaptya- Primary sterility
4. Garbhasravi- a cases of repeated abortion
5. Mrutavatsa- a case with still births
6. Balakshaya- Power of fertility:- is lost due to Dhatuksha

AETIOLOGY

Female infertility can be caused by a variety of causes. The following are some of the most common: Cervical issues Sperms are sometimes unable to pass through the cervical canal due to a structural abnormality. A past cervical procedure or irregular mucus production are two major explanations. Inseminations at intrauterine levels are used to treat cervical causes.

Hormonal causes Ovulation is an issue for some women. Synchronized hormone release results in the release of the egg from the ovary, the female sex organ, as well as the thickening of the endometrium (the inner lining of the uterus). These changes don't always happen in a logical order. Pelvic operations, hormonal assays, and, most importantly, ovulation prediction kits are used to determine the causes.

Damage to the fallopian tubes. Contact between the egg and the spermatozoon is prevented when the fallopian tube is damaged. Scarring and damage to the fallopian tube are caused by pelvic infections, pelvic operations, and endometriosis. Bilateral tubal occlusions Undiagnosed infertility Using currently available methods of research, roughly 20% of couples will not be able to pinpoint the cause of infertility.

For uterine purposes. Uterine anomaly; uterine polyps and uterine fibroids are some possibilities. Artava chakra (menstrual-cycle) is an indicator of the state of a woman's health, according to Ayurvedic nidana (pathology). Excessive physical exercise, food, lifestyle, stress, and emotional instability are all factors that affect the Artava chakra. As a result of these causes, the three biological humours and Dhatus are out of balance.

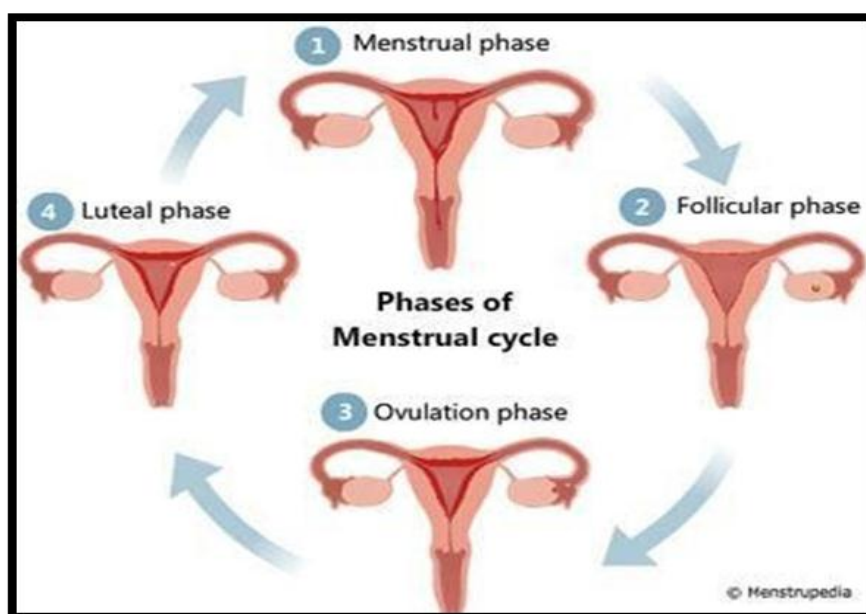


Figure 1: Diagrammatic representation of Different Phases of Menstrual Cycle.

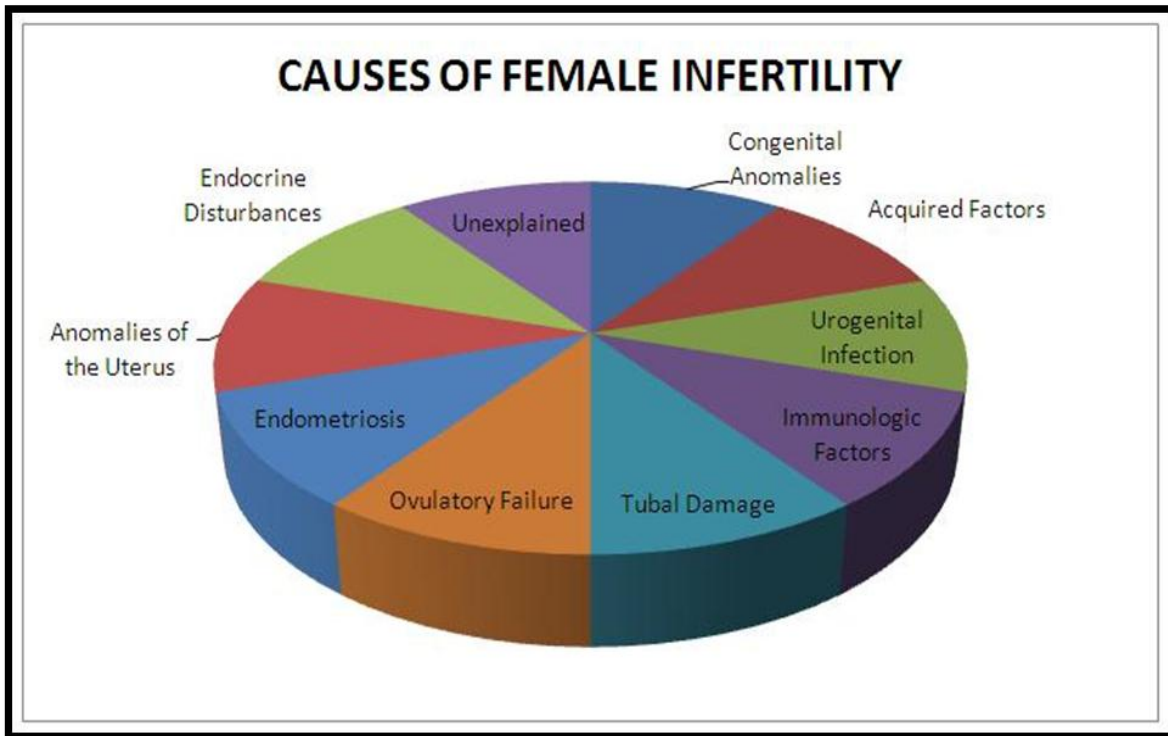


Figure 2: The various factors associated with female infertility.

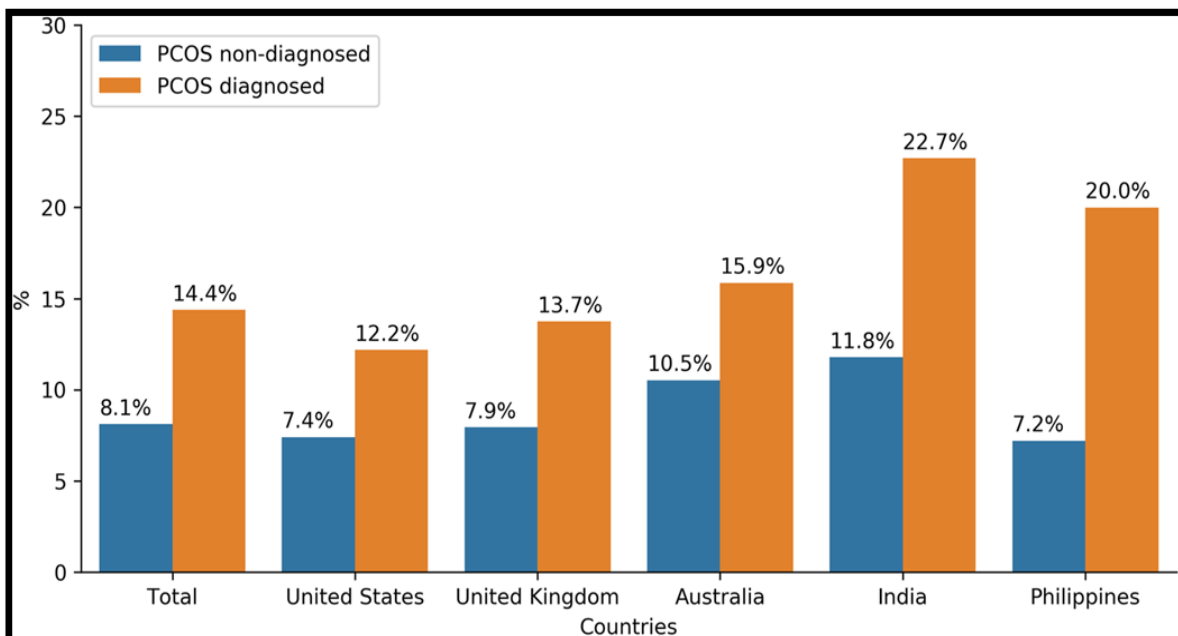


Figure 3: Women with physician-confirmed PCOS Percentage versus women without PCOS among users from top five responding countries.

ACCORDING TO AYURVEDA JATAHARANI

According to Kashyap Samhita, the concept of jataharini or revati is defined in the chapter "revatikalpa of kalpa sthana" of Kashyap Samhita. By ailing a mother at various periods of the reproductive cycle, such as menstruation phase, pregnancy, or puerperium, Revati causes various defects in kids and infertility in females. In the antepartum, intrapartum, and postpartum periods,

it harms and kills the ovum, embryo, foetus, or neonate. It is claimed to infiltrate non-religious women who do not adhere to physical, mental, and social norms.

Presentations of various types of jataharini are as follow

Sushka Revati: The lady has no menarche even till 16 years of age and has atrophied breasts and lean shoulders. This represents primary amenorrhea

characterized by absence of menses by age 14 years if no secondary sex characters are present and by age of 16 years if secondary sex characters are present. The causes may be low level of FSH and LH, gonadal dysgenesis, turner's syndrome, androgen insensitivity syndrome or mullerian agenesis.

Katambhara: Lady does not have menstruation throughout her life and is emaciated, weak and irritable. This may be case of primary amenorrhea with low body weight. Weight loss can cause elevation in the hormone ghrelin which inhibits the hypothalamic-pituitary-ovarian axis. Elevated concentrations of ghrelin alter the amplitude of GnRH pulses, which causes diminished pituitary release of LH and FSH.

Pushpaghni: The lady has menstrual cycles but remains infertile. She also has thick maxilla and hairy face. This may be attributed to disorders like polycystic ovarian syndrome or disturbances of adrenal hormones and factors causing anovulatory menstruation.

Vikuta: The lady has irregular menses. Irregular menstruation is caused by hypothyroidism, uterine myoma, uterine polyp, infection of uterus, dysfunctional uterine bleeding, cervical cancer, hormonal imbalances, PCOS, etc.

ACCORDING TO MODERN STUDIES

Hormonal problems

Infertility can be caused by a variety of hormonal disorders. Hypothyroidism (poor thyroid function), hyperprolactinemia (high male hormone levels), and luteal phase defect are examples of these conditions (low progesterone levels).

Thyroid, pituitary, and hypothalamus gland problems are examples of glandular issues. These are the major glands involved for the production and synthesis of reproductive hormones. Birth control medications, stress, and disorders like hypothyroidism can all influence them. If either of these glands has a problem, an imbalance will prohibit the entire ovulation process from taking place, making conception problematic.

Overproduction of "Prolactin" is an ovulatory disease. Overproduction of "Prolactin" causes hormonal imbalances, similar to glandular issues. Ovulation is suppressed and interfered with by prolactin, a milk-producing hormone. The overproduction of androgens is caused by an incomplete ovulation cycle known as anovulation. Overproduction of these androgens, notably testosterone, results in a decrease in the production of oestrogen, which marks and signals the ovulation process.

Multiple cyst growths in the ovaries cause Polycystic Ovarian Syndrome (PCOS), resulting in hormonal imbalance and menstrual backflows. Low levels of oestrogen and progesterone, which are required for ovulation, result in poor egg quality and failure to develop eggs. These unmaturing eggs develop into cysts that border the outer and inner ovaries. PCOS also promotes high insulin production, which leads to type II diabetes and increased testosterone production.

Bilateral tubal occlusion

Female infertility is commonly caused by fallopian tube blockage. Because the ovum and sperm are unable to converge in blocked fallopian tubes, fertilisation is impossible. Ovarian tubes, uterine tubes, and salpinges are all names for fallopian tubes (singular salpinx).

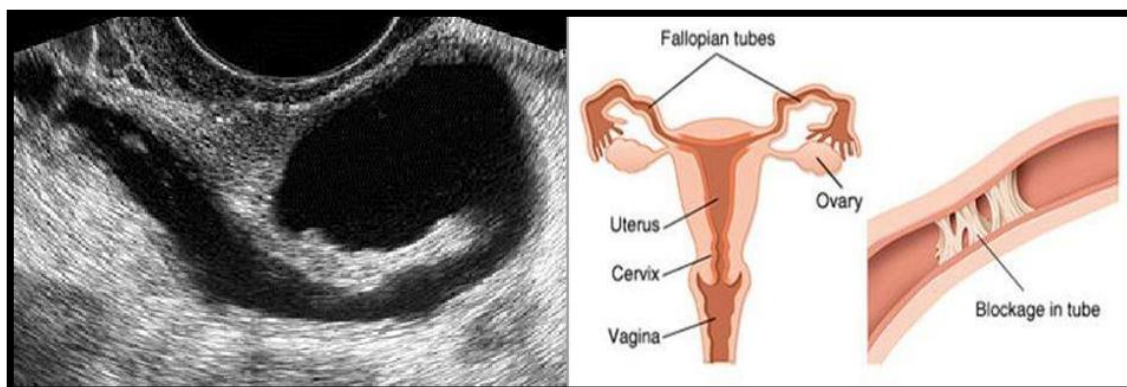


Figure 4: Depiction of Ultrasound Image of Polycystic ovary and tubular blockage.

PCOS (Polycystic Ovary Syndrome) is a common reproductive endocrine condition that affects around 5% of women. The ovaries produce excessive levels of androgens (male hormones like testosterone) in Polycystic Ovary Syndrome (PCOS). PCOS (Polycystic Ovary Syndrome) is a prevalent cause of infertility, irregular menstruation, and hirsuteness (excessive hair growth).

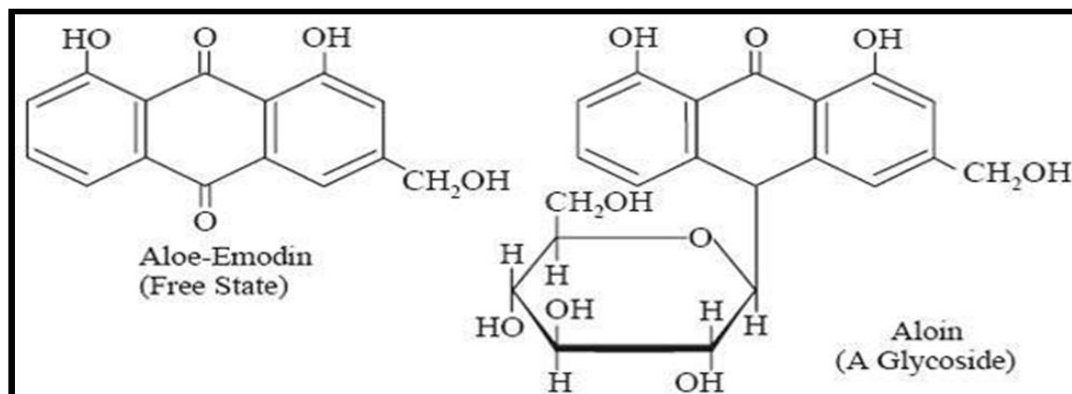
The specialty of Kidra kumara tailam

It's always tough to express and comprehend something that's so broad and encompasses so many things. Ayurvedic principles cover all areas of human existence, including physical, mental, and spiritual aspects, therefore descriptions get increasingly abstract. Srotas Artavavaha is also the same. From the brain to the uterus, it encompasses the entire female reproductive

tract as a structural and functional unit. It encompasses not just the hormones involved in reproduction on a physiological level, but also all physical features associated with female reproductive organs. The Artavavaha Srotas are particularly important structures because they transport Bija Rupi Artava. Throughout the classics, Artava is referred to as Raja.

Kidra Kumara tailam especially works on artava srotas

Pharmacognosy: Chemical Constituents Aloe-emodin occurs in the free state and as a glycosides in various species of Aloe and also in Rheum (Rhubrb). Curaeao aloes contains about two and half times the amount of aloe emodin when compared to cape-aloes.



SELECTION CRITERIA FOR PATIENTS

The study enrolled women of childbearing age who complained of infertility due to tubal factor, which was detected by a hysterosalpingogram (HSG). Patients with a urogenital infection, a history of heavy menstruation, a chronic debilitating disease, sexually transmitted infections, HIV, hepatitis B, infectious disorders, and other conditions were excluded from the study. A total of 62 patients were enrolled, with 52 completing the therapy programme. Due to personal family issues, one patient had to stop receiving treatment. Before and after the treatment, routine haematological and urine analyses were performed.

SELECTION OF DRUG AND ITS MODE OF ACTION:

About 25–35 percent of female infertility is caused by tubal obstruction. Pcods account for 25.88 percent of the total. Because Vata was responsible for Samkocha, Kapha for Shopha, and Pitta for Paka, tubal block was

considered a Vata-Kapha-dominated Tridoshaja disease. As a result, all three Doshas were jointly accountable for the stenosis or obstructive kind of fallopian tube pathology. The medicine was chosen based on its Vata-Kaphashamaka and Tridoshaghna qualities, as well as its Ushna-Tikshna-Sara-Laghu-Pramathi and Sukshma properties, in order to clear the obstruction by accessing the minute channels. As a result, kidra kumari tailam includes Kumari is a vata kapha shamaka that aids in the removal of tubal blockages, whereas yasti madhu (glycyrrhiza glabra) contains phyto estrogens and powerful antioxidants, daruharidra balances pitta and kapha dosas and regulates menorrhagia in pcods, and Amalaki (Emblca officinalis) are extremely useful formulations that aid in the (LH). The kapha vata shamaka feature of piper cubeba is present.

Route of administration: Uttaravasti Use Only Dosage: 3-5 ml with intrauterine device

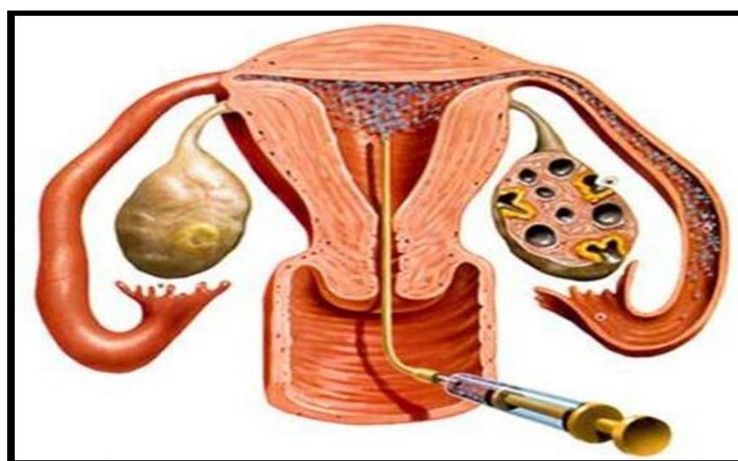


Figure 5: The Intrauterine administration of uttaravasti at the site.

The vagina and cervix were visualized with the help of the speculum and an anterior vaginal wall retractor. The anterior lip of the cervix was held with the help of the Allis[®] forceps.

Uterine sounding was done and then uttaravasti cannula, already attached with 3-5 mL syringe filled with kidra kumara tailam was passed into the uterine cavity after making a head low position. The drug was pushed above the level of the internal os with constant force, but

quickly to make the drug reached up to the tubes. The patient was sent to bed and the bed was kept with head low for two hours. The lower abdomen was fomented with hot water bag.

Patients were asked to avoid very spicy food during treatment. Coitus was prohibited during the course of uttaravasti and proper care was taken to see that patients did not suffer from constipation.

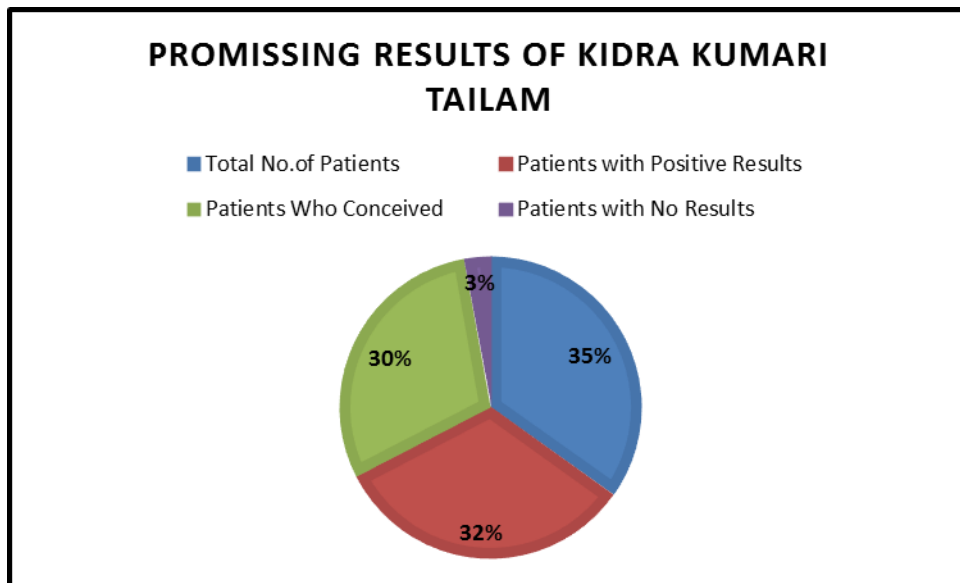


Figure 6: Pie chart showing the positive results of Kidra Kumari Tailam.

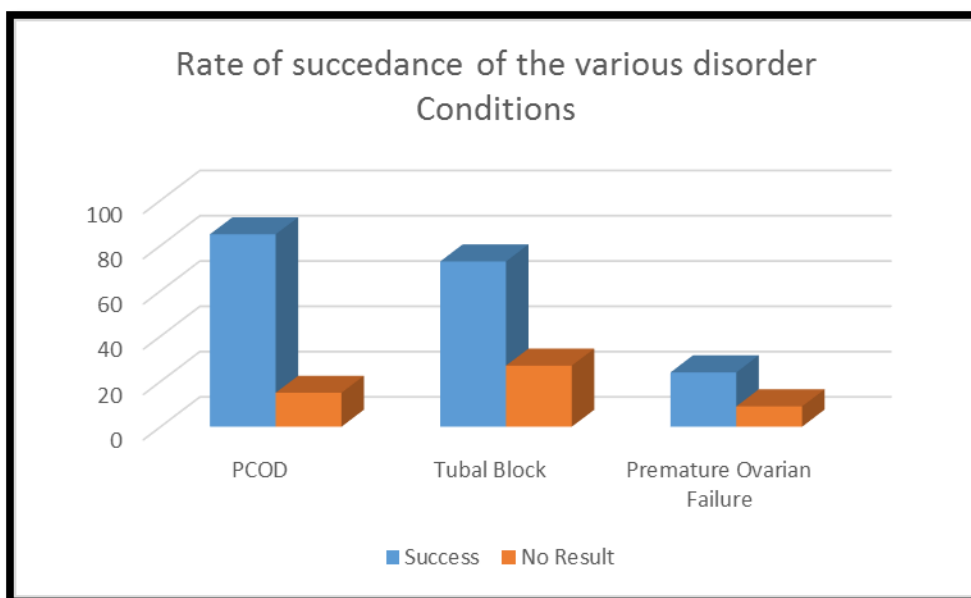


Figure 7: Representation of the various disorder condition success rate by using ayurvedic therapy management.

CONCLUSION

It can be concluded from the study that Kumari Taila's intrauterine uttaravasti is highly successful in eliminating tubal blockages with an outstanding rate of conception. Due to its numerous ingredients having an influence on the ovarian and hormonal activities, it may also be useful

for other aspects of female infertility and menstruation disorders, such as oligomenorrhea, hypomenorrhea, and dysmenorrhea. In this study, there were no notable complications with this technique. Intrauterine uttaravasti can be established as an easily accessible, cost-effective Ayurvedic therapy for tubal obstruction

with minimal side effects after further research. Its effect on tubal infertility in patients with a history of genital tubular blockage can also be assessed in a long-term study. Despite the fact that uttaravasti is a noninvasive operation with a low risk of fibrosis after completion, more research is needed to determine whether it is a reliable therapeutic measure. Ayurvedic infertility treatment is particularly efficient in correcting the many pathological conditions that cause infertility in both men and women. Many cases of unexplained infertility and tubal block can be successfully treated using Ayurvedic medicines and treatment methods. This case study provides insight into how to effectively manage primary infertility associated with PCOS using Ayurvedic therapy approaches. The results achieved in this single case study are promising, and the procedure used here might be tested in larger samples. Although Ayurvedic treatment does not directly alter the hormonal system, it does play a significant part in restoring its normalcy and harmony, which leads to the necessary conditions for fertilization.

Informed consent

Written consent was obtained from the couple for the purpose of publication of their clinical details.

Source of Funding

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Conflict of Interest

None declared.

Author contributions

The physicians responsible for the assessment, treatment plan and interaction with the patient.

Dr.A.Padmanabha Rao contributed in data analysis, interpretation, discussion and drafting of the publication.

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