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Review Article

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"UTTARA BASTI IN GYNAECOLOGICAL PRACTICE: PROCEDURE, INDICATIONS, SAFETY AND CLINICAL OUTCOMES — A NARRATIVE REVIEW"

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ABSTRACT:

Background: Uttara basti, the instillation of medicated oil, ghee or decoction into the uterus, vagina or urinary bladder, is one of the most widely used Panchakarma procedures in Ayurvedic gynaecology. It is described in the classical texts as the principal local therapy for disorders of the reproductive tract and is now used in India for female infertility, tubal blockage, endometrial disorders and urinary conditions. Its growing use calls for a critical appraisal of its procedure, indications, safety and evidence base. **Objective:** To review the classical description of Uttara basti, its contemporary gynaecological applications, the published clinical outcomes and the safety considerations relevant to an intrauterine procedure. **Methods:** Charaka Samhita, Sushruta Samhita and Ashtanga Hridaya were reviewed for the description of Uttara basti. PubMed was searched up to October 2026 for clinical studies, case reports and reviews on Uttara basti and for evidence on the safety of comparable transcervical procedures. Each cited record was verified against PubMed and findings were synthesised narratively. **Results:** The classical texts specify instruments, timing in the post-menstrual phase, preparatory oleation and sudation, positioning and post-procedure care. Published studies report tubal patency in 69–80% and conception in 6–40% of women with tubal blockage, and favourable outcomes in case reports of infertility associated with polycystic ovary syndrome and endometriosis, endometrial calcification and uterine fibroids, together with a small comparative pilot study in fibroids. In urology, one comparative study of 60 patients with urethral stricture and several case reports describe benefit. No randomised controlled trial with live birth as an outcome was identified, and adverse events are seldom reported systematically. Evidence from hysterosalpingography and tubal flushing indicates a low but real risk of pelvic infection with transcervical procedures, reduced by screening and selective antibiotic prophylaxis. **Conclusion:** Uttara basti is a plausible, low-cost and well-described procedure with encouraging preliminary outcomes. Standardised protocols, infection-control safeguards and controlled trials are needed before firm recommendations can be made.

KEYWORDS: Uttara basti, intrauterine instillation, Panchakarma, tubal blockage, female infertility, procedural safety

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INTRODUCTION

Panchakarma, the set of purificatory procedures of Ayurveda, includes several forms of Basti, the administration of medicated liquids through a body orifice. Uttara basti is the form given through the urinary or genital passage, so called because it is administered through the anterior or upper route, or because it is regarded as superior in its effects[1–3]. In women it may be instilled into the urinary bladder or, more commonly in gynaecological practice, into the vagina and uterine cavity. In men it is given through the urethra into the bladder.

In the classical texts, Uttara basti is the principal local therapy for disorders of the female reproductive tract (Yonivyapad), for menstrual disorders and for infertility, and for disorders of the urinary passages[1,2]. In contemporary Ayurvedic gynaecology departments in India it is used for tubal blockage, anovulatory infertility, endometriosis, endometrial disorders and fibroids, as well as for urethral stricture and interstitial cystitis in urology[4–12]. Because the uterine route involves instruments passing through the cervix into a normally sterile cavity, the procedure raises safety questions that are also familiar from hysterosalpingography, intrauterine insemination and tubal flushing[13–16].

This review aims to describe the classical procedure of Uttara basti in a form accessible to an integrative readership, to summarise its contemporary indications and the published clinical outcomes, and to consider its safety in the light of evidence from comparable transcervical procedures.

METHODOLOGY

This narrative review was prepared in two parts. First, the primary classical texts of Ayurveda, namely Charaka Samhita (Siddhi sthana, chapter 9 and Chikitsa sthana, chapter 30), Sushruta Samhita (Chikitsa sthana, chapter 37 and Uttara tantra, chapter 38) and Ashtanga Hridaya (Sutra sthana, chapter 19), were studied with their standard commentaries for the description of Uttara basti, its instruments, timing, technique, indications and complications[1–3]. Second, PubMed was searched for literature published up to October 2026 using the terms Uttarabasti, Uttara basti, Uttar basti, intrauterine instillation, tubal blockage, Ayurveda, tubal flushing, hysterosalpingography, pelvic inflammatory disease and antibiotic prophylaxis. Clinical studies, case reports and case series, systematic reviews and cohort studies were considered. Every reference cited in this article was checked against its PubMed record for authors, title, journal, year, volume, pages and digital object identifier. Retracted publications identified during the search were excluded. The findings are synthesised narratively rather than statistically.

CLASSICAL DESCRIPTION OF UTTARA BASTI

1. Instruments and drugs

The classical texts describe a nozzle (Netra) made of metal, attached to a bag (Basti putaka) traditionally prepared from animal bladder, through which the medicated liquid is propelled[1,2]. Separate dimensions of nozzle and depth of insertion are prescribed for men, adult women and girls, and for the urinary and genital routes, the genital route permitting deeper insertion than the urethral route[2]. Today a sterile disposable syringe attached to an intrauterine cannula or a fine flexible catheter is used, which achieves the same purpose with greater asepsis.

The medicaments used are of two broad types. Unctuous preparations, medicated oils (Taila) and ghee (Ghrita), are used in the manner of Anuvasana basti, whereas decoctions (Kvatha) are used in the manner of Niruha or Asthapana basti to cleanse the passage[1,2]. The choice of drug depends on the Dosha involved and the purpose of treatment. Oils with Vata-pacifying and nourishing properties are used where tissues are dry or depleted, whereas alkaline (Kshara) preparations with scraping (Lekhana) and channel-clearing actions are used where obstruction or Kapha predominates[5,7,17].

2. Timing

Sushruta and Vagbhata advise that Uttara basti for gynaecological indications be given during Ritukala, the phase after cessation of menstrual flow, because the cervical orifice is then considered to be open and receptive, enabling the medicament to enter the uterus easily[2,3]. This corresponds broadly to the early proliferative phase of the menstrual cycle, before ovulation, when the risk of interfering with an established pregnancy is lowest. Exceptions are made in urgent conditions such as genital tract disorders requiring immediate treatment. Contemporary protocols therefore usually begin after menstruation has ended and

complete the course before the expected time of ovulation[4,5].

3. Procedure

Preparation consists of local and general oleation (Snehana) and sudation (Svedana). The classical texts advise that the passage be cleansed with one or more Niruha basti before Uttara basti is given[1,2]. The woman is positioned supine with the thighs flexed and raised, and the nozzle, lubricated with oil, is introduced gently along the passage to the prescribed depth. The medicament, warmed to body temperature, is instilled slowly, and the nozzle is withdrawn. The patient rests with the hips elevated for a period to allow retention[2,3]. The classical authors recommend that the procedure be repeated on successive days, with the dose increased gradually, and that the return of the instilled fluid be observed[1,2].

Charaka and Sushruta warn that faulty technique, such as forceful or deep insertion, an improper nozzle or administration of an inappropriate quantity or temperature of medicament, may cause pain, injury and other complications, and they describe their management[1,2]. These warnings anticipate the modern emphasis on gentle technique, appropriate instruments and correct patient selection.

4. Contemporary protocols

Published Ayurvedic studies describe broadly similar modern protocols. In studies of tubal blockage, 5 mL of medicated oil was instilled into the uterine cavity on six days after cessation of menstruation, with a three-day interval between groups of instillations, over two consecutive cycles, after screening blood, urine and serological tests for infection[4,5]. Other reports describe a single instillation per cycle repeated over three cycles[10] or courses over three consecutive months[8]. Some authors combine Uttara basti with systemic Shodhana procedures such as Virechana and Basti, and with oral formulations, so that the effect of Uttara basti itself cannot be isolated[6,7,9].

INDICATIONS AND CLINICAL OUTCOMES

1. Tubal blockage

Tubal factor infertility is the indication with the most published data. Ayurvedic authors correlate the fallopian tubes with the Artavavaha srotas and interpret their blockage as an obstruction (Sanga) of this channel produced by Vata and Kapha, for which drugs with scraping and channel-clearing actions are indicated[17]. In a study of 16 women with unilateral or bilateral tubal blockage on hysterosalpingography, Kumari taila Uttara basti produced tubal patency in 80% of the 15 completers and conception in 40% within a two-month follow-up, with no apparent complications[4]. In 19 women treated with Yavakshara taila Uttara basti using the same schedule, tubal patency was found in 68.8% and conception in 6.3%[5]. Neither study had a control group. Hysterosalpingography may misclassify proximal tubal spasm or mucus plugs as true occlusion, and the hydrostatic effect of instilling fluid may itself restore patency, so the specific contribution of the medicated oil cannot be determined from these data.

2. Infertility associated with polycystic ovary syndrome and endometriosis

In a case report of an 11-year history of primary infertility with polycystic ovary syndrome and failed intrauterine insemination and hormonal treatment, an individualised programme of Shodhana and Shamana therapies, including Uttara basti, was followed by weight loss of 20 kg, restoration of regular menstruation and conception within eight months[6]. In another case report, a woman with endometriosis and ten years of primary infertility, who had undergone several unsuccessful cycles of assisted reproduction, conceived after five months of treatment including Virechana, Basti and Uttara basti, and delivered a healthy term infant[7]. These reports are encouraging, but the multi-component nature of treatment and the possibility of spontaneous conception preclude causal inference.

3. Endometrial and uterine disorders

Endometrial calcification is an uncommon finding associated with secondary infertility and menstrual disturbance. In a case report, Uttara basti with Kshara taila and Phala ghrita for three consecutive months after menstruation was associated with improvement in scanty menstruation, reduction of calcification on ultrasonography and subsequent conception[8]. Phala ghrita is a classical medicated ghee indicated for women who desire progeny, and its combination with an alkaline oil reflects the classical principle of combining cleansing with nourishment.

Uterine fibroids have also been treated. In a comparative pilot study of 22 women with fibroids in Varanasi, all participants received oral Ayurvedic medicines, and the trial group additionally received intrauterine instillation of a medicated oil prepared in

a university pharmacy whereas the control group received sesame oil, over three months. All trial-group patients reported symptomatic relief, with complete resolution of fibroids in two and size reduction in five, whereas fibroids in the control group either increased in size or did not change significantly[9]. A case report described resolution of two small fundal fibroids and a cervical polyp in a woman advised to undergo hysterectomy after three months of oral medication with Uttara basti once in each cycle[10]. The pilot study is small and its methods are reported only briefly, but its use of an active control is a useful step beyond single-arm designs.

4. Urinary and urological indications

Although this review focuses on gynaecology, urological studies provide relevant information on technique and tolerability. In 60 patients with urethral stricture, Apamarga kshara taila Uttara basti was compared with urethral dilatation, and significant improvement in obstructed flow, straining, dribbling and prolonged micturition was reported[11]. Case reports describe the use of Uttara basti with Bala-Ashwagandhadi taila for recurrent bladder neck contracture after transurethral resection of the prostate[18] and with Jatyadi taila for interstitial cystitis with Hunner's ulcers, where benefit was sustained over two years of follow-up[12]. These reports show that medicated oils can be instilled repeatedly into sensitive mucosal cavities without reported harm in selected patients, but they do not directly establish safety within the uterus.

5. Allied local therapies

Uttara basti forms part of a wider group of local therapies for the female genital tract, including medicated tampons (Yoni pichu), pessaries (Yoni varti) and douches (Yoni prakshalana). In a single-arm pilot trial of 15 women with thin endometrium, a medicated vaginal tampon for six days after menstruation combined with an oral formulation improved endometrial thickness, vascularity and uterine scoring for reproduction, and one woman conceived[19]. Such less invasive vaginal procedures may be preferred where intrauterine instrumentation is unnecessary or contraindicated.

SAFETY OF UTTARA BASTI

1. Lessons from comparable transcervical procedures

Few Ayurvedic studies report adverse events systematically, so evidence from comparable procedures is informative. Hysterosalpingography and tubal flushing involve the introduction of a cannula through the cervix and the instillation of fluid, including oil-based media, into the uterus and tubes. A Cochrane review of 15 trials involving 3864 women found that flushing with oil-soluble contrast media may increase live birth and clinical pregnancy compared with no treatment, but that oil-soluble media increased the odds of asymptomatic intravasation, the passage of contrast into blood or lymphatic vessels, compared with water-soluble media; infection and haemorrhage were poorly reported[13]. In a national Dutch survey of 5165 hysterosalpingographies, intravasation occurred in 4.8% of procedures with oil-based contrast and 1.3% with water-based contrast, without further consequences, and pelvic inflammatory disease occurred in 0.3–0.4%[14].

These data suggest that the instillation of oil into the uterus is not inherently dangerous at small volumes, but they also show that intravasation of oil is a recognised event. Uttara basti volumes are usually small, typically a few millilitres, and the oils used are not radiocontrast agents, but the potential for intravasation and oil embolism has not been studied for Ayurvedic oils, and the instillation pressure is not usually controlled or monitored. Gentle, slow instillation of small volumes and avoidance of the procedure immediately after uterine instrumentation or in the presence of endometrial trauma are therefore prudent.

2. Infection

Pelvic infection is the most important potential complication of any intrauterine procedure. In a Taiwanese cohort of 7919 women undergoing hysterosalpingography, the cumulative incidence of acute pelvic inflammatory disease was 1.42% without and 0.46% with antibiotic prophylaxis, an adjusted odds ratio of 0.33[15]. A systematic review of antibiotic prophylaxis for procedures related to assisted reproduction concluded that routine prophylaxis is generally not recommended for most transcervical procedures, but that women at risk of pelvic infection should be screened and treated beforehand, and that those with a history of pelvic inflammatory disease or dilated fallopian tubes should receive prophylaxis[16].

Ayurvedic studies have screened participants with blood, urine and serological tests and have excluded women with active pelvic infection[4,19], but none has reported the use of standardised screening for genital

tract infection such as chlamydia, nor the use of a sterility protocol for medicated oils. Given that tubal blockage, a leading indication for Uttara basti, is itself frequently a consequence of previous pelvic infection, the risk of reactivating infection in this population deserves particular attention.

3. Contraindications and precautions

On the basis of classical guidance and modern principles, Uttara basti should not be performed in the presence of pregnancy or suspected pregnancy, active or recent pelvic inflammatory disease, acute cervicitis or vaginitis, undiagnosed abnormal uterine bleeding, suspected malignancy of the genital tract, or during menstruation[1–3,16]. Hydrosalpinx should be considered a relative contraindication in view of the infection risk associated with dilated tubes[16]. Pregnancy should be excluded before each course, the procedure should be performed by trained practitioners in an aseptic setting with sterile disposable instruments, and medicated oils should be prepared and stored under conditions that maintain microbiological quality. Patients should be counselled about expected discomfort and the warning signs of infection.

DISCUSSION

Uttara basti is one of the most distinctive procedures of Ayurvedic gynaecology. Its classical description is detailed and in several respects consistent with modern procedural principles: timing in the post-menstrual phase, gentle technique, small volumes and attention to complications[1–3]. The clinical literature is dominated by case reports and single-arm studies, with consistent reports of tubal patency, menstrual improvement and conception[4–10]. However, there are no randomised controlled trials of Uttara basti in any gynaecological indication, conception is reported only over short follow-up periods, and live birth is rarely documented.

Several features complicate interpretation. First, most published regimens combine Uttara basti with systemic Shodhana and oral medicines[6,7,9,10], so the specific contribution of the procedure is unknown. Second, mechanical effects, such as the hydrostatic flushing of tubes and cervical canal, may contribute to benefit independently of the medicament; trials of oil-based tubal flushing show that this mechanism can itself increase pregnancy rates[13]. A trial that compared medicated oil with plain sesame oil or saline delivered by the same technique, as the fibroid pilot study did in part[9], would separate these effects. Third, adverse events are poorly reported. Even if serious complications are rare, an accurate estimate of their frequency requires systematic reporting across large numbers of procedures[14,15].

Research priorities are therefore clear. Standardised protocols specifying drug, volume, temperature, instrument, number of instillations and timing should be developed and published. Randomised trials, ideally multicentre, should compare Uttara basti with appropriate controls, use laparoscopy or validated sonographic techniques to confirm tubal status, and report clinical pregnancy and live birth. Medicated oils should be characterised chemically and tested for microbial contamination. Prospective registries of Uttara basti procedures in teaching hospitals would provide valuable safety data at modest cost.

For clinicians, Uttara basti can reasonably be offered within an integrated plan for women with selected indications, provided that a full modern fertility evaluation has been carried out, that infection has been excluded, that the procedure is performed aseptically by trained staff, and that time-sensitive situations, particularly advanced maternal age and reduced ovarian reserve, are not allowed to delay effective assisted reproduction.

CONCLUSION

Uttara basti is a classical, well-described and low-cost procedure for local treatment of the female reproductive and urinary tracts. Published studies report encouraging outcomes in tubal blockage, infertility associated with polycystic ovary syndrome and endometriosis, endometrial disorders and fibroids, but rest on small, largely uncontrolled samples. Evidence from comparable transcervical procedures indicates a low but real risk of infection and of intravasation that justifies careful patient selection, screening and asepsis. Standardised protocols and adequately powered controlled trials with live birth and systematic safety reporting are now required.

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