Critical review and some case studies.Modern etiological factors are responsible to produce infertility are late marriage, nutrition less diet and fat rich food, stress and excess use of antibiotics and soon. It leads to produces disorders in both partners like unovulatory cycle, tubal block, PCOD, obesity and many more in female while low sperm count, erectile dysfunction etc. in male. 

Results:- Panchakarma contributes very important role in treating these disorders responsible for infertility by 1. Basti: Reproductive system present in katisthana which is sthana of apanvayu. Basti acts on vata predominantly. It increases strength of reproductive system present in katisthana which is sthana of apanvayu. It increases strength of reproductive organs. 2. Uttarbasti: Acts on endometrial receptors and also increases receptivity of genital tract to entry of sperm. 3. Virechana: It increases sheetguna required for shukrattapiti and increases jatharagni for nourishment of shukradhatu. 4. Nasya: It may act on pituitary gland stimulate secretion of FSH, LH hormones. 5. Various case studies also show significant results by panchkarma management in infertility.

Conclusion: From this review and case results it is clear that panchkarma can treat infertility successfully.

Keywords: Panchakarma, Infertility, Uttarbasti, Ayurveda

INTRODUCTION
VandhytvaNashtartavaVidyat i.e. a woman whoseartava is perished is called vandhyatva is mentioned in Ayurveda. One third (30%) of infertility can be attributed to male factors, and about one third (30%) can be attributed to female factors. In about 20% of cases infertility is unexplained, and the remaining 10% of infertility is caused by a combination of problems in both partners.

The mean global incidence of infertility among general population is estimated as 16.7%. Both shaman and shodhanchikitsa are mentioned for infertility in Ayurvedic texts. But it is need of time to categorize and evaluate the efficacy of this treatment especially panchkarma with respect to various factors of infertility.

MATERIALS AND METHODS
Critical review and some case studies are presenting here.

Nidana for vandhyatva:
1. Mithyaaharvihar
2. Aartavdushti
3. Mata pita beejdushti
4. PurvajanmakritPapkarma

Modern etiological factors are responsible to produce Infertility:
1. Early and late marriage: Not well development of reproductive organs.
2. Nutrition less & fat rich food: No nourishment of body, tempers ovary function
3. Over use of antibiotics and excess use of chemotherapy agents, surgical procedures cause infertility.
4. Excess use of painkillers: Endocrine disrupter property.
5. Excess use of cosmetics: Blocks the hormones.
6. Tight clothing & mobile: Overheating of testis leads to low sperm count.
8. Improper hygiene of genital organs: Causes infection of genital tract
9. Stress: Loss of energy and enthusiasm to do sex, Loss of libido, Affects HPO axis leads to impairment of ovarian function.

Due to above causes disorders produce in both partners:

**Female**
1. Unovulatory cycle
2. Acidic pH of vagina
3. Menstrual irregularity
4. Tubal block
5. PCOD
6. Obesity
7. Hormonal problems
8. Cervical issues
9. Uterine trouble
10. Hypothalamic dysfunction
11. Premature ovarian insufficiency
12. Too much prolactin
13. Endometriosis
14. Scarred ovaries
15. Previous ectopic pregnancy

**Male**
1. Low sperm count
2. Premature ejaculation
3. Loss of motility of Sperm
4. Genetic problems
5. Diabetes
6. Blockage of sperm transport
7. Hormonal problems

**Ayurvedic aspect of treating infertility:** In Ayurveda both shodhan and shaman chikitsa are mentioned, but here we will see panchkarma

**BASTI:** Reproductive system present inklussthana which is sthana of aparnayu. Action of basti is predominantly on vata-dosha and pakvashaya. Garbhashaya is made up of vayu and akashmahabhuta. In basti mainly tikitrasatamakdravya (vata+akashmahabhataprakhan) are used though they are vatavadraha, acts as catalyst to take the medicine to vatasthana. Sneha in basti acts as catalyst in absorption of other drugs medicinal properties. Since Basti is targeted at regulating the Apana Vayu it facilitates timely release of ovum and also good production of sperms.

**UTTARBASTI:** It contributes very important role in treating infertility because it has direct local action in reproductive system. It also helps to increase receptivity of genital tract to entry of sperms. Ovaries contain receptors which receive hormones secreted by hypothalamus and pituitary gland. The drug stimulates these receptors, so that proper ovulation occurs in beach cycle. 1 Uttar Basti relieves tubal block biolysis of adhesions and relieves obstruction.2In cervical factor, drug administered locally in the cervix and absorbed by cervical epithelium due to sukshma property of drug. The lipid soluble drug is passively diffused across the membrane in the direction of its concentration gradient. The rate of trans-
port is proportional to lipid: water partition coefficient of the drug. The more lipid soluble, higher is the concentration and quicker diffusion. In this way altered cervical pH can be corrected by

**UttarBasti.**

**3Basti** and Uttarbastidravyas for different diseases:

**Tubal Block:**
1. Kasisadi Tail + Kshar Tail.
2. Kumari Tail.
4. Tila Tail + saindhav + gomutra + mamsarasabasti.

**Acidic pH of vagina:**
1. Balamool + milk = ksheerpak + sukhoshnajal.
2. Kankshijal.
3. Panchvalkalkwath.

**Menstrual irregularity or unovulatory-cycle:**
1. Phalaghrita.
2. Shatavarighrita.

**PCOD or Uterine Fibroid:**
1. Dashmool Tail + Devdarvyadikwath.
2. Phalaghrita.

**Miscarriages:**
1. Gambhari + Kutaj = kwath + ghrita.
2. Balatail.
4. Chatusnehaanuvasanbasti, Guduchyadi tailuttarbasti.
5. Udumbaradi tailuttarbasti.

**Obesity:** Lekhaniyaganbasti, Yapanbasti.

**Ovarian factors:** Prajasthapangandravya siddha ghrituttarbasti, Vrishyabasti.

**Cervical factors:** Ashwagandhaghrit and phalghrituttarbasti.

**Uterine fibroid:** Panchatiktaguggulghrituttarbasti.

**Unexplained infertility:** Sheetkalyanakghritauttarbasti.

**Erectile dysfunction:**
Ashwagandhadi Tailuttarbasti.

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**Low sperm count:**
Shukrakarakbasti, Drakashadiniruhabasti, Vrishyabasti.

**VIRECHANA:**
It acts on vitiated Pittadosha decreasesushnaguna of pitta and increases sheetguna required for formation of shukradhatu. Impaired agni by vikritpitta also corrected by virechana. Agni is required for prakritnirmiri of shukradhatu. Obstructing doshakapha is removed and Vatadosa that gets obstructed by kaphadosa is also cleared off by virechana.

**Dravya:**
Mahatiktakghrita, TrivritLeha.

**NASYA:**
It acts directly on brain, pituitary because “NASAHI SHIRASO DWARAM”. No one cranial nerve is exposed to exterior than olfactory receptors. The mucosal epithelium is sensitive to variety of stimuli. The ghrita and tail easily absorbed through mucosal epithelium. It helps to stimulate the pituitary to secret FSH & LH hormones.

**In Female:** Chandan Tail, Bala Tail, shatpushpatal, phalaghrita.

**In Male:** Narayana Tail.

**CASE STUDIES** which were treated by ayurvedic treatment:

1. **Case of Tubal Block:**
Kaphavruttavata, female suffering from PID. History of Tuberculosis.

**Used Treatment:** First given yogabasti. Then uttarbasti with Kumari Tail.

**Action:** Ushna, tikshna medicines act by lekhanakarma. Tilatail acts as garbhashayashodhak, vranapachak, vranashodhak. **Result:** 70% tubal block removed.

2. **Case of Acidic pH of vagina:**
All is normal, but sperms are killed in vagina. Investigation shows pH ovaginais more acidic.

**Used treatment:** Avagahsweda with
kankshi + water uttarbasti with panchavalkalkwath Action: Amliyata of yoni due to vitiation of pitta. Panchavalkalkwath having kashayrasa, sheetvinya. This helps in pittashaman by sthanikshodhan. Kankshi acts asjantughma. Result: Patient is conceived in next cycle.

3. Case of Low sperm count:
Action: Pitta and kapha dushti leads to indigestion. Improper formation of rasadhatu so further dhatus are not nourished. Mahatiktakghrit helps in pittashaman and virechanam remove vitiated pitta. Balatailbasti helps in dhatuvriddhi. Result: Sperm count is increased at significant level.

DISCUSSION
The important cause of infertility is adoption of modern lifestyle. Ayurveda can treat infertility by various methods of panchakarma procedures like basti, virechana, nasya using different Ayurvedic formulations. Proper selection of drug and time of administration is very essential for getting the desired results.

CONCLUSION
There are various Ayurvedic procedures that may increase a person’s fertility and enable the birth of wanted child. But emotionally and economically the best solution for infertility is the prevention of infertility at different levels of everyday life.
This review summarizes and evaluates the evidence underlying the use of panchakarma for female infertility. From review of ayurvedic texts and case study results it is clear that panchakarma can treat infertility successfully. This is case review article helping of Ayurvedic reviews. While above mentioning infertility treatments, it is important to remember to remove infertility problems like PCOD tubal block; ovarian and cervical factors stress etc. from the situation and bring as much love to intimacy as you can.

REFERENCES

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