

# International Journal of Applied Ayurved Research ISSN: 2347-6362

# MANAGEMENT OF SECONDARY INFERTILITY DUE TO TUBAL BLOCK AND CHRONIC ANOVULATION WITH AYURVEDIC REGIMEN: A CASE STUDY

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## **ABSTRACT**

Infertility or Vandhyatava has been a long-standing problem of the human community from the ancient period to the modern era. Modern science classifies infertility into two types; primary and secondary. According to WHO, primary infertility refers to a condition in which a woman has never conceived before, and secondary infertility is the incapability of a couple to conceive who have had at least one see successful conception in the past. Charaka Acharya has explained Vandhyatva as having an incurable congenital or acquired abnormality resulting in absolute sterility.(14) Charak while describing 'Vajikaran therapy' in chikitsa adhyaya 2 exquisitely describes infertility as an unwanted and unfair condition. He has also classified vandhya into three types vandhaya, Apraja and Sapraja. Apraja is considered as primary infertility and Sapraja as secondary infertility. Maharishi Harita describes six types of infertility among which 'kakvandhaytva' refers to a condition of sterility after one child. The case represented through the current study is with bad obstetric history and disturbed menstrual history with anovulatory cycles she also had right-sided Salpingectomy done due to tubal conception and had h/o one missed abortion. The examination of excised tube showed the presence of Koch's of tubes and HSG revealed blockage at Lt tube. After taking AKT for 6 months she had preferred allopathic treatment for conception for one year. After taking Ayurvedic treatment and proper pathya and Apathya management for 1 year she conceived successfully.

Key Words: Vandhyatva, infertility, tubal block, anovulatory cycles, kakvandhya

INTRODUCTION: Modern science describes blockages in fallopian tubes due to scar tissue formation ,infection and pelvic adhesions this in turn leads to blockage of passage of sperms to get to fertilize ovum. and also passage of product of conception. Blocked fallopian tubes are common cause for infertility. Another part of study is anovulation. Ovulation occurs when ovaries release an egg in preparation for pregnancy .Condition in which egg does not matures and women does not ovulates is anovultion. It also leads to irregular Menstrual cycle.

Strotasa according to Ayurveda, indicates dynamic organization,inner transport system of body mind and spirit.(2) Four variety of stroto dusti lakshnas are observed that represents physiological vitiation. Among them sanga strotodusti lakshna of Artava vaha Strotas are correlated with blockage of fallopian tube.(5). Infertility is directly related to abnormality of both the tubes by damage through obstruction. Acharya Charaka gave dushti lakshna of Artava vaha Strotasa which includes Vandhyatva, Maithuna

Asahishnuta (Dyspareunia) and Artavnasha (anovulation). 16

According to Sushruta the word means Stribeeja (ovum) Artava blood) Rajastrava (menstrual Nastaartava may represent destruction of ovum or menstrual blood. As Artava is considered the prime factor for conception. In current case study a patient with bad obstetrics history(BOH) and medical history of having Koch's was treated successfully by using Ayurvedic regimen. It was a case of secondary infertility which was conceived after one year of Ayurvedic treatment protocol.

# Treatment Principles of Infertility in Ayurveda

Ama Pachana and Agni deepan: Ama formation and agni dusti are primary factors in strotorodh. Hence it was treated by using digestives and carminatives.

Vatanulomana: Vitiation of vata dosha results in agnimandhya which ultimately results in dhatva agnimandhya again results in Ama formation and apakva of rasa dhatu nirmana causes avarodhatmak dushti results in sanga in Artava vaha Strotasa. As a result, improper formation of Rasadhatu gives no nutrition to Artava ultimately results in viphala Artava formation i.e. anovulation. So vatanulomana gives great contribution for treatment in infertility.

**Shodhana:** Depending on the patient's condition, therapy techniques such a basti (medicated enema) and uttarabasti (special enema administered via urethral or vaginal pathways are used Anuvasana basti is advocated to infertile women having nasta pushpa, alpa pushpa, nashta bija and akarmanya bija (Ka.Sam.Si 7).

As recommended by Shamana: ayurvedic compedias, various Kalpas used in a different phase of treatment.

#### **CASE REPORT:**

A female patient aged 28 years, with occupation as tuition teacher married since 11 years belonging to lower middle class came to OPD of Arogyashala Rugnalya, Seeking consultation for secondary infertility and BOH on 19 Jan 2019

#### **Medical history:**

- 1) Known case of Hypothyroidism since 4 years on regular treatment tab Thyronorm 75mcg Daily once.
- 2) History of Koch's in 2017 and taken AKT for six months Surgical history:
- 3) Right-sided laparoscopic salpingectomy done before 2 years
- 4) Dilatation and Curettage of abortus fetus done before month

#### **Obstetric history:**

- 1) Ectopic pregnancy at right sided fallopian tube in 2017
- 2) Missed Abortion at four weeks of pregnancy before one year

#### Menstrual history-

Irregular menstrual cycle with less blood flow and severe

dysmenorrhea (1-2 days/28 days)/2 pads per day)

#### **History of Husband:**

- Age 30 years all reports all normal with normal semen analysis, -
- libido normal
- no any external contraception used

#### **Local Examination:**

P/S-Cervix healthy with leucorrhea seen within

P/V- Uterus AVAF ,Normal size ,uterus mobile and fornices clear

#### **Investigations of patient:**

Complete Blood Count: within a normal limit.

Urine routine: within a normal limit.

Thyroid Profile Test: TSH-0.004 uIU /ml on

regular Rx Tb Thyronorm 75 mcg.

Ovulation study done in each month during treatment

28/2/2019 :10TH day of menses-multiple small follicles noted-right ovary 10 mm at lt

ET-6.5mm. After deepan Pachana ovarv and basti chikitsa 2/3/2019

TVS-12<sup>th</sup>day right side multiple small follicles Endometrial thickness(ET)- 7.5 mm

12/3/2019

Type TVS 22nd day Multiple small follicles (right ovary) ET- 10.2 mm

After treatment of about 1 year ovulation study done

## **Table.1 LMP 30-12-2019**

DATE	TYPE	DAY	RT OVARY	LT OVARY	ET	FF
			(mm)	(mm)	(mm)	
9-1-2020	TVS	11th	Multiple small follicles	11mm	7mm	NoFF
11-1-2020	TVS	13th	Same	11mm	7.8mm	NO FF
13-1-2020	TVS	15th	Same	11.5mm	8.5mm	NO FF
15-1-2020	TVS	17th	Same	12mm	9.0mm	NO FF
18-1-2020	TVS	20th	Same	12.5mm	9.5mm	NO FF
21-1-2020	TVS	23th	same	12.5mm	11mm	NO FF

#### Table 2. LMP-19/02/2020

DATE	TYPE	DAY	RT OVARY	LT OVARY	ET	FF
			(mm)	(mm)	(mm)	
4-3-2020	TVS	13th	Multiple small	22 mm	10 mm	No FF
			follicles			
5-3-2020	TVS	14th	same	25 mm	10.7mm	No FF
6-3-2020	TVS	15th	same	25 mm	11mm	No FF
9-3-2020	TVS	18th	same	Ruptured follicle	12mm	Min FF

**Hysterosalphingogram:** blockage both cornua of fallopian tubes.

## **Hysterolaproscopy:** done in 2017

- Right sided ectopic pregnancy with thick and beaded appearance of tube noted.(fig no)

## **HETUSEVANA** (Etiological factors)<sup>3</sup>:

- -Vegavrodha Of Mutrapravrutti and Malapravrutti
- Daily Vishamahara sevana (Milk And Salt, Biscuit, Khari, Toast)
- Manasika Dushti (Stressful Behavior): Depression, Irritation

### 1st follow-up on:

detailed history was taken and examination was done

#### **GENERAL EXAMINATION:**

Obesity: Mildly obese with weight 70 kg

## Astavidha pariksha:

Nadi	94/min	Mala	Grathit mala
			Pravrutti
Mutra	Samyaka	Akruti	madhyam
Jivha	saam	Sparsha	sheeta
Shabda	Avisheh	Druka	samanya

Udarparikshana: Udardhman ,Agnimandya Aruchi

#### LOCAL EXAMINATION

Per speculum :cervix : healthy: vaginal white discharge with redness within

Per vaginal: uterus : AV AF/normal size /mobile /fornices clear

#### STROTAS PARIKSHAN:

Rasavaha: Aruchi

Annavaha: Agnimandya

Artava vaha : Irregular menses with dysmenrrhea and scanty menses

#### **AYURVEDIC TREATMENT:**

# Total treatment given to patient was for one year

# 1) Treatment for first 4 months (Jan-**Apr 2019**)

- Amapachana includes
- Amapachak vati....2 twice ....vyanudan kala.....for 30 days
- Shankha *vati.....*2 twice.....vyanudana kala....for 30 days
- Sanjeevani *vati.....*2 twice....vyanaudana kala for 10 days
- Yonidhavan with triphala kwath .....for 8 days in each month
- Yonipicchu with Narayana taila .....for 8 days in each month
- Yogabasti karma for 8 days in each month in rutukala

# 2)Treatment for 2nd 4 months (May to Aug)

- Uttara basti 1st cycle with kasisadi Taila and next 2 cycles with phalaghrut
- Total 3 cycles given each cycle per month
- (Abhyantara) Shaman chikitsa given with
- Beeja pushti churna ....1 tsf with water twice....after meal
- Chaturbeeja churna....1 tsf with water twice....after meal
- Rasayan churna....1 tsf with water twice ....after meal
- Laghumalini *vati....*2 twice day.....after meal
- Dadimadi ghrut 1 tsf with food twice
- Phala ghrut before food twice
- Dashamula arishta for Vatanuloman
- Chinchalavan Taila

## 3)Treatment for 3rd 4 months(Sept to Dec)

- Uttar basti with kashmari kutaja ghrut 2 cycles
- with rest of shaman Chikitsa **DISSCUSSION:**

In the present case, there are multiple for secondary infertility which mainly involves her h/o having Koch's. After having ectopic pregnancy in the rightsided fallopian tube excision of that tube was sent for histopathological examination.

Apart from that, the excised tube on examination was observed it was with few tubercles on a fallopian tube, a tube was thick with beading .patient had taken AKT for 6 months. Then the allopathic treatment was taken for one year despite when she was conceived patient appeared ayurvedic treatment. Following the treatment patient successfully conceived after her last LMP- 19/05/2020 and USG findings of 06/07/2021 were A single, live intrauterine gestation of average gestational age 7 weeks. and USG OF 29/01/2021 showed average gestational age of 35 weeks 3 days

1)*AMA* **PACHANA** AND **AGNI DEEPANA**: After darshan sparshana and prashna parikshan Samata was diagnosed in the first OPD checkup. Her menstrual cycle was irregular. Vata Kapha dushti due to above-mentioned hetusevan combined causes Srotorodh for which Amapachaka treatment was given through Amapachaka vati, Shankha vati, and Sanjeevni vati. Irregular and weak digestion is responsible for the vitiation of *Vata* and

Kapha and ultimately is responsible for

pathogenesis leading to anovulation.

Sthana	Pratham avarta vagina
Chikitsa kala	In Rutukalavasta 8 to 15 days
time	1 to 2 min
Chikitsa dravya	Triphala kwath
Dravya praman	500 ml
Arhata	Vaginal discharge with vaginal itching
instruments	Enema pot, rubber catheter, no 14,asepto
	syringe

#### 2) YONI DHAVAN AND YONI PICCHU:

It is a procedure of cleansing of vaginal region and purifying it and various kalpas such as kwaths, Siddha tailas are utilized for such function. In our case, the patient had mild vaginal discharge with itching. yog used for yonidhavan is Triphala kwath as said accordingly by Acharya Sushruta.

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Triphala choosen as a part of our treatment because it is cost effective and easily available.It is from Mustadi Gana of Sushruta which has property of curing diseases related to vagina.

Yoni picchu (Vaginal tampoons) : Sneha used for yoni picchu is Narayana Taila .Ovulation is under the control of Vata. Narayana Taila cures all the diseases of

Vata including Vandhyatva(17). So it will definitely acts on Anovulation. Its use gives results Amapachana ,Vata kapha shaman and Strotoshodhan that remove Sanga & Avarana leads to Proper function of Vayu and Regulation of Beeja Granthi karma and Beejotsarga. Yoni picchu was advised for about 4-5 hours per day for 8 days of each cycle.

#### 3) SHAMAN CHIKITSA:

In this patient shaman chikitsa was given after shodhan chikitsa by using mainly beejapushti churna,rasayana churna, laghumalini vati. dadimadi ghruth, phalghrut, and as she was having frequent complaints of constipation so Dashamularista and Chinchalavan Taila was given.

Beejapusthti churna: It contains Suvarna bhasma, Makardhwaja choorna, yashtimadhu churna, Gokshura ,shatavari and Amalaki in Ashwagandha kwatha .It balances Kapha and reduces Vata.

Chaturbeeja churna (Bhavprakash, Haritkyadi varga): Methika ,Kalalaji Kalonji Yavanika

In our patient infertility was due to anovulation and irregular and inadequate menstrual flow as studied through ovulation study hence Chaturbija churna had essential karma to carry out. According to Bhava Prakasha that Chaturbeeja Churna when taken daily cures Vata disorders, ,Shoola, Adhmana, Parshvashoola and Kativyatha. These drugs have Vata shamaka, Deepana, Garbhashaya Shoolahara, shodhaka properties. Thus, Chaturbeeja Churn is the drug of choice in our treatment.

Rasayana churna: Amalaki, Gokshura and Guduchi (Ashtang Hridaya Uttarsthan).

Study is known case of Hypothyroidism. Thyroid dysfunction can affect fertility in various ways by producing anovulatory cycles. Hypohyroidism significantly increases free radicles in body these free radicals interacts with body materials and cause destruction8.Rasayana interacts with these these free radicals and helps to reduce body destruction Our patient in..by considering hypothyroidism as dhatu pradoshaja vyadhi dhatu pradoshaja Rasa vyadhi. Rasapradosaja chikitsa i.e., Deepana, Pachana, Rasayan is done.deepan pacchana is previously done for that purpose.

# Phalghrut<sup>12</sup>:

The drug phalaghrita described in Sharangdhara was prepared by purifying (Murchhana) cow's ghee with Triphala, Musta, Haridra and Lemon, etc herbs. In our patient, *Phala-ghruta* was administered orally in the dose of 10 ml twice a day for 3 months continuously. And even as a part of Uttarbasti in two cycles.

It is also effective on other localized complaints like menstrual disorder, lower abdominal pain, tenderness, and dyspareunia. It promotes fertility.

Its intake by females gives strength to the uterus, prevents abortion, and cures infertility. It is an endocrine stimulant.

#### Dadimadi ghrut:

- Described in Ashtanghrudayam Chikitsasthana 16/2-4.Charak Samhita Chikitasthan 16/44
- Charaka has recommended dadimadi ghrita in anemia as well he has explained that it helps in normal delivery, good for heart and cures infertility. is also used in the treatment of infertility in women.<sup>18</sup>

#### 4) SHODHANA CHIKITSA:

MATRA BASTI: It is one type of Anuvasana Basti which is indicated in Infertility The Basti given in the patient Hypothalamic-Pitutary-Ovary regulates. axis, which results into normalization of ovarian cycle and menstrual cycle too. Parasympathetic activity may be responsible for the function of Apana Vata. Basti introducing through rectum and may stimulate the parasympathetic nerve supply, which in turn helps for development of follicles and release ovum from the ovary.13 **Lashunadi** Taila<sup>11</sup>: Having properties like kaphashamaka, Vata Deepana, Amapachaka, Jivaniya, Balya, Rasayan, Artavajanana, Garbhasthapaka, etc It removes of Sanga, correction of Agni Dushti and Improves Metabolism.Normal functionof Tridosha.Correction of pelvic ing physiology and Beeja Nirmana.

UTTARA BASTI4: Uttarabasti is a unique therapy for the management of gynecological disorders, wherein medicated oil or ghee is administered directly into the uterine cavity. Total 5 cycles of basti were administered to the patient. Intrauterine *Uttarbasti* with Kasisadi taila- 5 ml was given for 3 days after 7 days of last menstrual period – for two months in the second part of treatment followed by 2 cycles of phalghrut basti. and with kashmarya kutaja ghrut in the same quantity as Brumhana therapy for the last three months of treatment. . It improves blood circulation, nerve conduction and builds the immunity of organs (pelvic). It is highly effective in cases of sterility and impotence. Ovaries absorb the given medioil or ghruta stimulates hypothalamo-pituitary-ovarian axis.9

#### Kasisadi taila uttarbasti: .

The most of the ingredients of *Kasisadi taila* Tikshna, Ushna, Lekhana shodhanhara properties. As they have In Ayurved classic the Kasisadi taila is indicated in the management of Arsha. These properties helped to scraping out the slough and dead tissue as well as reduce the inflammation. Kasisa (Ferrous sulfate - FeSo4) have Krumighana (antimicrobial) property which helped to control the infection. *Vidanga* have *Krimighna*(anti-helminthes) have Jantunashak (antibacterial) property so obstructed part become free from any outside of bacteria. . These drugs also exhibits lekhana property so it removes any blockage from fallopian tube.

## Kashmaryakutaja ghrut<sup>7</sup>:

Described in Asruja yonivyapad -Uttarbasti with ghrita medicated with the kwath of kasmari & kutaja should be given.

Kashmarya: It is Brmhaniya, Vrsya and Rasayana in nature. The root bark however is included in the Sothahara group and Brhat-panchamula group by Charaka and Sushruta respectively. Gambhari Garbhasthapak., so helps in conception(14) **CONCLUSION**: After complete treatment with various Ayurvedic methods mentioned above patient was conceived after her last LMP 19/05/2020 .Delivered a male baby of weight 3.4 Kg through LSCS with cephalic presentation on 25 Feb 2021.

Patient had severe chronic anovulatory cycles that were studied through regular ovulation studies after treatment of 1 year from January 2019 to December 2019, there was 1st anovulatory cycle but since march 2020 her cycles were with ovulation and ruptured follicles.

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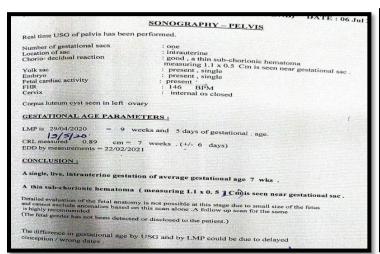
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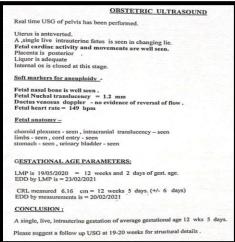
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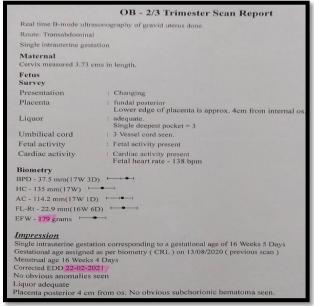
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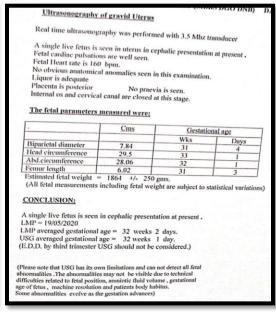
Source of support: Nil Conflict of interest: None Declared

Cite this Article as : [Gaikwad Akshata Gajanan et al : Management of Secondary Infertility Due to Tubal Block and Chronic Anovulation with Ayurvedic Regimen: A Case Study] www.ijaar.in: IJAAR VOL V ISSUE III JUL-AUG 2021 Page No:205-213









## **Investigation reports after conception:** Ovulation Study(below image):



