Ayurvedic Management of Primary Infertility Due to Chocolate Cyst: A Case Report

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Abstract:

Background: Endometriosis presents in three different entities, which are frequently found together: peritoneal lesions, deep endometriosis and ovarian endometriotic cysts (endometriomas). Ovarian endometrioma is a benign estrogen dependent cystic mass arising from ectopic endometrial tissue within the ovary. It contains thick, brown, tar like fluid, which may be referred to as a chocolate cyst. The presence of endometriomas indicates more severe stage of endometriosis. Endometriomas can lead to chronic pelvic pain and infertility, and often requires surgery for treatment. Endometriosis has been found in nearly 50% of women experiencing issues with infertility, and nearly 70% of women with pelvic pain. Classic symptoms includes dysmenorrhoea, dyspareunia, menorrhagia and infertility. Management of the ovarian cyst through surgery is available to meet urgent need of the patient, but to establish a satisfactory conservative medical treatment is the need of the hour. According to Ayurveda, depending upon most common symptoms it can be compared as a syndrome complex of Granthi, Vidradhi, Udavartini Yonivyapada, Paripluta yonivyapada and Vataja Yonivyapada. It is a Tridoshaja vyadhi with vitiation of Vata And Artava. Chocolate cysts can also be managed on the line of treatment of Granthi, (nodular/glandular swellings) Vidradhi (abscess), Raktapachana and Raktaprasadana. Aim: To manage Female infertility with chocolate cyst with shodhana and shamana therapy. Materials and Methods: A patient aged 25 years came to outdoor patient department of Prasutitantra Evum Streeroga with the complaint of lower abdominal pain and infertility since 2 years. Her Ultrasonography report reveals bilateral chocolate cyst with no dominant follicle. She has tendency of formation of recurrent chocolate cyst since 3 years. She was administered Virechana after completion of menses on 1st cycle, Dashmoola Shodhan Basti along with Uttara Basti with uttarabasti with kasisadi taila and sahachara taila in 2nd cycle, Yastimadhu Ksheera Basti for 3rd cycle along with the Uttara Basti with kasisadi taila and sahachara taila, on the fourth month Uttarabasti with 5 ml of Dhanvantra taila was done, Shigru Patra Avagaha Swedana and Jeenviya Choorna 3 gm orally with warm milk after Basti treatment. Results: Patient has marked reduction in the size of the chocolate cyst and she conceived with the treatment protocol of 4 months Conclusion: Above mentioned treatment plan has effective result due to Shothahara, Vatanulomana, Raktaprasadana properties which may have effectively curtailed the progress of ovarian cyst and helped in treating infertility.
Keywords: Endometrioma, Dashamoola Shodhanbasti, Infertility, Uttarabasti, Dysmenorrhea

Introduction:
Infertility is defined as a failure to conceive within one or more years of regular unprotected coitus. Ayurveda explained female infertility as Vandhyatva and mentioned Garbha Sambhava Samagri (proper union of four factors like fertile period, healthy reproductive system, nutrition and healthy ovum and sperm) and Manasika Abhitapa (psychological and emotional factors) as chief factors responsible for conception. Menstruation, one of the phases of the menstrual cycles is the periodic shedding of the lining of the uterus. It is purely a natural hormonal process. Endometriosis is a chronic progressive painful disorder which occurs almost exclusively in women of reproductive age group. It affects roughly about 10% of reproductive aged women and girls globally. Pelvic Endometriosis – 1-10% contribute as identifiable factor of female infertility. Endometriosis is the occurrence of ectopic endometrial tissues outside the cavity of uterus. Ovarian endometrioma is a benign oestrogen dependent cystic mass arising from ectopic endometrial tissue within the ovary. It contains thick, brown, tarlike fluid, which may be referred to as a chocolate cyst. It can enlarge to 6-8 cm in size. The symptoms of endometriosis can be correlated to many of the Yoni Vyapads described in our classics. Acharya Charaka has described Granthi in chapter dealing with Shotha due to similarity between basic clinical features i.e. swelling or protuberance and it is also included among the disease of vitiated Mamsa i.e., Mamsa Pradoshaja Vikara. Acharya Sushruta has described very clear and detailed definition of Granthi as: Vitiated Vata etc. Doshas, vitiating Mamsa (muscles), Rakta (blood) and Meda mixed with Kapha produce rounded, protuberant, knotty and hard swelling, knotty or glandular, so is called Granthi. It can also be compared to “Vyana Avruta Apana Vata” and Vikaras as Udvarta, Kastartava, Arti, Asrigdara, Gulma, Maithuna Ashishnuta, Vandhya, Mutrakricchra, Parikartika can arise due to the disturbed function of Apana Vata. As it is a Pakwasaya Gata Sthana Vyadh.

2. CASE REPORT: A 25 years old female patient came to our P.T.S.R. OPD, with failure to conceive since 2 years.

History of presenting complaints: Patient was trying to conceive after 2 years of marriage. She has excessive and regular menstrual cycle since 10 months associated with lower abdominal pain during menstruation. Her menstrual history revealed excess menstrual flow with clots for 6-7 days with the interval of 30 days. So, she approached Ayurveda management for the same.

Personal history:
Mala Pravruti- Satisfactory bowel movement, frequency -1 times a day,
Mutra Pravruti - Samyaka.
Nidra - Samyaka
Jivha -Shweta, Uplipta.
Kshudha- Madhyama
Trushna- Madhyama
Prakruti- Kapha Pitta Prakruti
Last menstrual period -17/2/2022
Menstrual history – 6-7 Days / 30 Days (excessive with clots, pads 3 /days with pain)
Marital life: 4 Years
Active marital life -3 years
Obstetric history: nil
Contraceptive history: nil
Coital history: 1-2 times/week
General examination:
Pulse rate- 70/min,
Blood pressure– 110/70 mm of Hg.
No Pallor, No oedema was found

Investigations: 6/3/2021
Haematological: Haemoglobin- 11.5gms%, platelet count- 293000/cu.mm
27/7/2021: Serology
HIV,HCV, HbsAg, VDRL : Negative
23/1/2021
S.TSH: 1.73m-IU/Lt.
S. Prolactin - 9.79ng/ml
29/1/2021
CA-125- 31.59 u/ml
27/7/2021
CRP -2.5 mg/dl, FBS -90 mg/dl
USG :
26/10/2020

USG OVULATION STUDY

<table>
<thead>
<tr>
<th>DATE</th>
<th>DAY</th>
<th>RIGHT OVARY</th>
<th>LEFT OVARY</th>
<th>ENDOMETRIAL THICKNESS</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>26/10/2020</td>
<td>Day 11</td>
<td>17x18mm size chocolate cyst. Another 18x13mm cyst with echos in it.1x1 cm cyst with few echos in it</td>
<td>21x21 mm size cyst with echos in it</td>
<td>6.0MM endometrium ,minimal fluid in endometrial cavity</td>
<td>Bilateral Chocolate Cyst. No Dominant Follicle in bilateral ovaries</td>
</tr>
<tr>
<td>30/01/2021</td>
<td>Day 12</td>
<td>3x2.3cm size chocolate cyst, 1x2 cm size complex cyst, no proper follicle</td>
<td>17x15mm size follicle, chocolate cyst present as same as previous size</td>
<td>8.2mm endometrium with good endometrial and subendometrial vascularity</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Day</td>
<td>Size</td>
<td>Details</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>------</td>
<td>-----------</td>
<td>-------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/10/2021</td>
<td>7</td>
<td>19x15 mm</td>
<td>chocolate cyst</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>20x20 mm</td>
<td>chocolate cyst</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15/12/2021</td>
<td>10</td>
<td>19x15 mm</td>
<td>chocolate cyst</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>20x20 mm</td>
<td>chocolate cyst</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>22x22 mm</td>
<td>dominant follicle seen</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>11mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29/1/2021</td>
<td>11</td>
<td>23x17mm</td>
<td>follicle</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ovulation ++</td>
<td>7.8mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/03/2022</td>
<td>14</td>
<td>Ovulation ++</td>
<td>-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

23/08/2021

**USG PELVIS (TVS)**

Uterus is normal in size & echo pattern No E/o. intrauterine or extrauterine mass or gestational sac
Endometrial thickness 5.5 mm
Both ovaries show cyst with internal low level echoes, s/o, chocolate cysts. Cyst on right side measures 22 x 21 mm in size. Cyst on left side measures 27 x 24 mm in size.
No Elo. free fluid in pelvic cavity
Cervical canal appears normal
Int. Os: Closed.
16/11/2021

**HSG EXAMINATION**

Uterine cavity normal in size and normal contour.
Right fallopian tube seen upto fimbrial end and
Shows free spillage on right side.
Left fallopian tube seen upto distal end but no e/o proper free spillage from fimbrial end on left side,
Impression: - right side patent fallopian tube.
Left side p/o tubal block from distal end.

**Samprapti**

*Mithya Ahara and Vihara* vitiates the *Tridoshas* mainly the *Vata Dosha* in endometriosis. Among the *Pancha vidha Vatas*, the *Vyana Vata* gets more vitiated. This vitiating *Vyana Vata* reaches the *Sthana* of *Apana Vata* and causes *Sanga* to *Apana Vata*. This results in the disturbed function of *Apana Vata*. The main function of *Apana Vata* includes *Artava, Mutra, Pureesha, Shukra* and *Garbha Nishkramana*. Hence *Artava, Mutra* and *Pureesha Vikaras* are encountered in endometriosis. *Vyana Vata* is responsible for the movement in the body. *Vyana Vata* after reaching the *Sthana* of *Apana Vata* obstructs the normal movement of *Apana Vata* and directs it in the opposite direction. Hence there is retrograde flow of *Artava.*

*Mithyaahara vihara*
Tridoshic vitiation mainly Vata

\[ \downarrow \]

VyanaVata

\[ \downarrow \]

Obstruction of ApanaVata

\[ \downarrow \]

Disturbed function of ApanaVata

\[ \downarrow \]

Vilomagati of Artava

\[ \downarrow \]

Artava and Mutra Purisha Vikaras

**INTERVENTION:**

<table>
<thead>
<tr>
<th>DATE</th>
<th>DRUG</th>
<th>DOSE</th>
<th>ROUTE</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/11/2021</td>
<td>Virechana with Trivruta Avleha</td>
<td>80gms</td>
<td>Oral</td>
<td>1 day</td>
</tr>
<tr>
<td>13/12/2021</td>
<td>Shodhan basti with Dashmool kwatha - 250ml and Sahachara taila 60ml</td>
<td>310ML</td>
<td>Rectal</td>
<td>3 days</td>
</tr>
<tr>
<td>13/12/2021</td>
<td>Uttarabasti with Kasisadi taila -3ml and Sahachara taila -2ml</td>
<td>3-5ML</td>
<td>Uterine</td>
<td>6 days</td>
</tr>
<tr>
<td>27/01/2021</td>
<td>Yashtimadhu ksheer basti</td>
<td>250ML</td>
<td>Rectal</td>
<td>8 days</td>
</tr>
<tr>
<td>27/01/2021</td>
<td>Uttarabasti with Kasisadi taila -3ml and Sahachara taila -2ml</td>
<td>5ML</td>
<td>Uterine</td>
<td>2 days</td>
</tr>
<tr>
<td>22/02/2022</td>
<td>Uttarabasti with Dhanwantara taila</td>
<td>5ML</td>
<td>Uterine</td>
<td>6 Days</td>
</tr>
</tbody>
</table>

Result: Patient achieve conception, she did urine pregnancy test at home on 22/03/2022, which was positive. On Further pregnancy was confirmed by ultrasonography on 01/04/2022 with single live intra
uterine foetus with CRL - 6week, foetal cardiac activity present. There is no any complication occurred during her ante natal period and she delivered healthy male baby on 02/12/2022 through lscs.

**Discussion:** *Shodhana Basti* therapy capable of expelling the vitiated dosha as well as waste from the body. In this *Shodhana Basti Ubhayasanshodhanartha* and anti-inflammatory herbs are used in the preparation of the medicine to be used in the form of *Basti*. Hence this *Basti* is capable of expelling the accumulation of dosha as well as waste. In *yashtimadhuksheerpaka Basti*, *Yashtimadhu* was used for the *ksheerapaka* in *niruha Basti* as it is both *Vata* and *Pittahara*. *Uttara Basti* causes local uterine contractions which stimulate the endometrium and ovarian receptors which stimulate the receptors and HPO axis regulating the menstrual cycle with ovulation. *Uttara Basti* stimulates these receptors so that maturation of follicles and ovulation occurs in each cycle. *Shigru patra Avgahana Sweda* also *Vata-kaphahara* and also act as an anti-inflammatory. *Jeevaniya Choorna* contains drugs of *Jeevaniya gana* which helps in achieving fertility.

**Conclusion:** The complicated clinical scenario demands accurate diagnosis and management to prevent surgical intervention. This Ayurvedic treatment protocol including a combination of both *Shodhana* and *Shamana* therapies were helpful in combating the infertility to a satisfactory level. The treatment principles when applied clinically yield very good clinical results to the patient satisfaction. Ayurveda blesses the feminine world with numerous drugs which helps to maintain their health in a natural way. Hence, this was helpful for the patient who have infertility with chocolate cyst. Therefore, this approach can be considered in patients with infertility with chocolate cyst and also it helps to raise awareness in society towards ayurveda.

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