A case of infertility due to PCOS treated successfully with homoeopathy

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Abstract
Infertility is defined as “the inability to conceive after multiple sustained attempts of unprotected intercourse for at least 2 years. Polycystic ovarian syndrome (PCOS) which affects 8-10% of reproductive-aged females is the most common endocrine cause of infertility. Earlier reports in literature have highlighted the role of individualized homoeopathic treatment in the management of PCOS with infertility. A case report of successful management of secondary infertility due to PCOS with homoeopathic treatment presented herewith.

A 31 years old obese lady presented to OPD of CRI(H), NOIDA with clinical presentation of PCOS and secondary infertility. She was diagnosed as PCOS based on Androgen society and Rotterdam criteria and managed on the lines of individualized homoeopathic medicine Sepia and followed for a period of 2 years. Regularization of menstrual cycle, reduction in serum testosterone level, significant improvement in insulin sensitivity, normalization of ultrasound pattern of ovaries followed with conception and normal delivery with homoeopathic medicine were observed.

Keywords: Homoeopathy; hyperandrogenism, polycystic ovary syndrome; secondary infertility, sepia

Introduction
Infertility is defined as inability to naturally conceive a child or inability to carry a pregnancy to full term. It is a condition where the couple is unable to conceive after multiple sustained attempts of unprotected intercourse for at least two years. The World Health Organization (WHO) estimates that 60 to 80 million couples worldwide currently suffer from infertility [1]. Infertility varies across regions of the world and is estimated to affect 8 to 12 per cent of couples worldwide [2, 3]. Infertility tends to be highest in countries with high fertility rates, an occurrence termed “barrenness amid plenty [4].”

Infertility in India has been a grossly neglected medical condition since it is not a life threatening. However, the truth is that it creates a considerable psychological impact on couples. Both men and women react in different ways to infertility, sometimes resulting in rift in the couple and at times leading to their separation. Individually, both partners often experience depression and anxiety which might elevate stress levels. But it is absolutely important for the couple to stand together during this phase and support each other. Infertility is a medical condition not by choice, some cases of which can be overcome with proper treatment while others cannot.

Total infertility is divided into primary and secondary infertility. Definitions of primary infertility vary between studies, but the operational definition, put forth by the WHO, defines primary infertility as the “inability of women during to conceive within two years of exposure to pregnancy (i.e. sexually active, non-contraception, and non-lactating) among women 15 to 49 yr old [5]. Secondary infertility refers to the inability to conceive following a previous pregnancy.

In women, the causes of infertility include Fallopian tubal defects or disease, ovulatory dysfunction, polycystic ovarian disorder or PCOD (in almost 40 percent of cases), endometriosis, hormonal imbalances like hypothyroidism, immunological factors, congenital abnormalities and sexual dysfunction. Other common causes are genital tuberculosis (a chief factor in rural India), a condition characterized by abnormal growth in the woman's reproductive system, STDs that may permanently destroy the woman's reproductive system, obesity, use of certain medications, smoking and alcohol consumption [6].
The most common cause of medically treatable infertility is polycystic ovarian syndrome (PCO). A prospective observational study conducted in Muhammad Medical College from 2005 to 2008; reported PCOS as the cause of infertility in 38.5% [1].

Polycystic ovary syndrome affects 8-10 percent of reproductive-aged females, making it the most common state of endocrine dysfunction in women. Polycystic ovary syndrome affect woman’s Quality of life as well as her fertility & obstetrical outcomes. It represents 80% of anovulatory infertility cases [1]. PCOS has adverse effect on pregnancy & miscarriage. Various treatment modalities are available in conventional medicine for infertility in PCOS including further surgical intervention.

Patients with PCOS are often treated for the signs and symptoms of the condition without consideration for the underlying syndrome, causing frustration for many affected patients. Abnormal uterine bleeding, endometrial hyperplasia and cancer, hirsutism and other skin changes, obesity, glucose intolerance, hypertension, and hyperlipidemia often accompany the syndrome, making it imperative to address these issues.

Homoeopathy has been used in the management of broad spectrum of diseases. Constitutional Homoeopathic medicine acts on psychic, somatic & pathological levels providing holistic approach to cure diseases. However in gynaecology, its use remains limited when it comes to the context of evidence and publication. A case is presented here, where constitutional homoeopathy was successful in the treatment of PCOS with infertility.

Case report
A 31 year old obese woman presented with a clinical history of secondary infertility for the last 2 years despite of regular unprotected intercourse. Concurrent signs and symptoms of oligomenorrhea, amenorrhea / irregular menses for 12 months (L.M.P.- 2.2.14) and hyperandrogenism (Hirsute, F.G. score-8) of similar duration were noted. She had gained 6kgs of weight in last 2 months. The general examination revealed a normal bp of 100/70mmhg with high BMI of 36.2 with waist and hip ratio of 0.965. Ultrasonography of abdomen revealed features suggestive of polycystic ovaries (PCO) on both sides. The RT. ovarian volume was 17cc and Lt ovarian vol.15.5cc with multiple peripheral follicles more than 12 in numbers measuring 4-5mm on both sides.. Biochemically, hyperinsulinaemia (HOMA IR ~4.3, raised) was observed in association with a raised serum luteinizing hormone (LH) and raised testosterone concentrations. Her fasting sugar was 103mg/dl. Other biochemical and hormonal levels are within normal range as shown in table-1. The patient had been suffering from irregular and painful menstruation of more than 45 days duration and was unable to conceive for the last 2 years for which she was taking allopathic treatment without satisfactory result. She reported for to DDPRCRI (H), NOIDA for homoeopathic intervention and has diagnosed as a case of bilateral polycystic ovarian disease. The description of the case is as follows:

Present Complaints: Failure of conception since 2yrs after 1st child who was of 6yrs old. Irregular, painful menstruation for last 1 year, character of blood was bright red and heavy in amount being thick dark clotted, offensive (fishy) odor with cramping pain in pelvis leading to weakness.
- No significant past history.
- Strong sycotic family history as mother had uterine fibroid, father who had hypertension, expired due to heart failure at age of 65, Paternal grandmother had Diabetes mellitus and grandfather had Hypertension and died of cardiac arrest.
- BMI- 36.2. Hirsutism (Ferriman score-8)

Homoeopathic Generalities
- Physical constitution – fat, flabby.
- Chilly patient; general aggravation in winter. Tendency to catch cold.
- Appetite – good. can wait for food
- Desire for spicy food, fried food.
- Intolerance to sour things causes throat pain
- Moderate thirst for large quantities at long intervals.
- Stool satisfactory.
- Urine normal in frequency and consistency.
- Sleep sound.
- Sweat profuse on armpits, forehead, offensive, staining white
- Mind – Irritability angered easily, didn’t like consolation which was making her more irritable, couldn’t bear contradiction, she was reserved, wept when alone.

Investigations
10.6.13 USG of Pelvis – rt ovary- 14.4cc. lt ovary-13.7 cc
Multiple cysts in both ovaries >10 (Bilateral polycystic ovaries) and on 13/02/2014 – USG of Pelvis – rt ovary-17cc, lt ovary-15.5 cc Multiple cysts in both ovaries >12 (Bilateral polycystic ovaries) (Figure-1,1a)
Fig 1a: USG PELVIS

Table 1: (Biochemistry and hormonal assessment): (Figures- 2, 3, 4, 5)

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serum cholesterol</td>
<td>174 mg/dl</td>
</tr>
<tr>
<td>Serum triglycerides</td>
<td>89 mg/dl</td>
</tr>
<tr>
<td>HDL (High density lipoprotein)</td>
<td>40 mg/dl</td>
</tr>
<tr>
<td>freeT3 (Triiodothyronin)</td>
<td>~2.8 pg/dl</td>
</tr>
<tr>
<td>freeT4 (Triodothyroxine)</td>
<td>1.82 ng/dl</td>
</tr>
<tr>
<td>TSH (Thyroid stimulating hormone)</td>
<td>3.26 uIU/ml</td>
</tr>
<tr>
<td>Serum prolactin</td>
<td>7.1</td>
</tr>
<tr>
<td>Fasting blood sugar (FBS)</td>
<td>103 mg/dl</td>
</tr>
<tr>
<td>Fasting insulin</td>
<td>16.9 mg/dl</td>
</tr>
<tr>
<td>Glucose insulin ratio</td>
<td>6.094</td>
</tr>
<tr>
<td>DHEA-S (Dehydroepiandrosterone sulfate)</td>
<td>136 ug/dl</td>
</tr>
<tr>
<td>Total testosterone</td>
<td>66.57 ng/dl</td>
</tr>
<tr>
<td>SHBG (Sex hormone binding globulin)</td>
<td>27.70 nM/L</td>
</tr>
<tr>
<td>F.S.H. (Follicle stimulating hormone)</td>
<td>6.19 ng/dl</td>
</tr>
<tr>
<td>L.H. (Luteinizing hormone)</td>
<td>11 ng/dl</td>
</tr>
</tbody>
</table>
Fig 2: FBS and Serum Insulin

Fig 3: Testosterone and SHBG
Fig 4: LH, FSH, Prolactin, T₃, T₄, TSH

Fig 5: DHEA-S
Fig 6: Lipid Profile

Diagnosis – polycystic ovarian syndrome.

Characteristic Totality

Mental generals –
- Consolation <
- Contradiction <
- Reserved
- Anger easily

Physical generals
- Sour food causes throat pain
- Desire for spicy food
- Offensive perspiration

Particular Symptoms –
- Irregular menses
- Offensive menses
- Secondary sterility
- Character of the menstrual blood – clotted.

Rubrics Taken For Repertorisation
- MIND, anger trifles at
- MIND, Consolation <
- MIND, Contradiction <
- MIND, Reserved
- GENITALIA FEMALE, MENSES, painful, Dysmenorrhoea
- Genitalia Female, MENSES, offensive
- Genitalia Female, Sterility
- Desire for spicy food

Result of Repertorisation (Figure-7)

Fig 7: Result of Repertorisation
• Ars alb and Nux vom scored highest & got 13/22 each, covering the 13 symptoms out of 18 symptoms.
• Sepia got 11/22 marks and covered the 11 symptoms out of 18 symptoms.

Comments
• Arsenicum album and Nux vomica scored highest & got 13 each, but Sepia covered 11 symptoms out of 18.

After consulting Materia medica, Sepia is preferred to be prescribed first. The typical syctotic background, syctotic constitution, chilliness of the patient weighed more in prescribing Sepia.

Prescription: Sepia 30 tds/3days+ P.L.30 bd/15days on 26.2.14

Table 2: Date of prescription and follow ups table

<table>
<thead>
<tr>
<th>Date</th>
<th>Symptoms</th>
<th>Weight</th>
<th>BMI</th>
<th>Medicine Potency</th>
<th>Repetition DAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>14/03/2014</td>
<td>Lmp-2.3.14 Bright red , clots, offensiveness decreased, weakness ,pain pelvis, cramp legs decreased</td>
<td>95Kg</td>
<td>36.19</td>
<td>Sepia 30/ T.D.S/3days P.L. 30/ B.D./ 30 days</td>
<td></td>
</tr>
<tr>
<td>5/04/2014</td>
<td>Lmp-1.4.14 .Bright red , clots decreased, back pain , pain abdomen decreased</td>
<td>95kg</td>
<td>36.19</td>
<td>Sepia 30/ O.D./3 days P.L. 30/ B.D./ 30 days</td>
<td></td>
</tr>
<tr>
<td>03/05/2014</td>
<td>Lmp-2/5/14 Bright red ,no clots, no pain Weakness decreased</td>
<td>95kg</td>
<td>36.19</td>
<td>Sepia200/ O.D./3 days P.L. 30/ B.D./ 30 days.</td>
<td></td>
</tr>
<tr>
<td>13/06/2014</td>
<td>Bright red, no clot, noclot, not offensive. Weakness and lethargy was there</td>
<td>94kg</td>
<td>35.81</td>
<td>Sepia1M// O.D./3 days P.L. 30/ B.D./ 30 days.</td>
<td></td>
</tr>
<tr>
<td>24/7/2014</td>
<td>Lmp- 16.7.14 Bright red, thick, no pain no backache; weakness</td>
<td>96kg</td>
<td>36.57</td>
<td>Sepia1M// O.D./3 days P.L. 30/ B.D./ 30 days.</td>
<td></td>
</tr>
<tr>
<td>28/8/2014</td>
<td>Bright red, no stain, not offensive, mild pain in leg and mild weakness USG-no PCO rt.ovary-8.7cc,lt ovary-4.4cc(Fig-11)</td>
<td>94kg</td>
<td>35.81</td>
<td>Sepia1M// O.D./3 days P.L. 30/ B.D./ 30 days.</td>
<td></td>
</tr>
<tr>
<td>20.09.2014</td>
<td>Bright red, no stain, not offensive, mild pain in leg and mild weakness</td>
<td>92kg</td>
<td>35</td>
<td>Sepia10M/ O.D./2 days P.L. 30/ B.D./ 30 days.</td>
<td></td>
</tr>
<tr>
<td>12.11.2014</td>
<td>Advised for USG Pelvis</td>
<td>87kg</td>
<td>35</td>
<td>P.L. 30/ B.D./ 30 days</td>
<td></td>
</tr>
</tbody>
</table>

Delivered a female baby on 17.06.15

Table 3: (changes in patient’s sign, symptoms and investigations)

<table>
<thead>
<tr>
<th>BMI</th>
<th>Before Treatment</th>
<th>After Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acanthosis nigricans</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Waist to hip ratio</td>
<td>0.96</td>
<td>1</td>
</tr>
<tr>
<td>duration of the cycle (days)</td>
<td>45</td>
<td>32</td>
</tr>
<tr>
<td>Ferriman Total score</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Acne global severity scale</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ovarian volume-Right(cc)</td>
<td>17</td>
<td>8.7</td>
</tr>
<tr>
<td>Ovarian volume-Left(cc)</td>
<td>15.5</td>
<td>4.4</td>
</tr>
<tr>
<td>Size of the largest follicle-Right (mm)</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Size of the largest follicle-Left (mm)</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Sex hormone binding globin</td>
<td>27.7</td>
<td>22.3</td>
</tr>
<tr>
<td>LH/FSH ratio</td>
<td>11/6.19</td>
<td>4.6/2.96</td>
</tr>
<tr>
<td>Total testosterone (ng/dl)</td>
<td>66.57</td>
<td>45.7</td>
</tr>
<tr>
<td>Dehydroepiandrosterone-sulfate (ng/dl)</td>
<td>136</td>
<td>253.3</td>
</tr>
<tr>
<td>Serum insulin (mU/ml)</td>
<td>16.9</td>
<td>12.3</td>
</tr>
<tr>
<td>Fasting glucose (mg/dl)</td>
<td>103</td>
<td>91</td>
</tr>
<tr>
<td>Glucose insulin ratio</td>
<td>6.094 I:G=0.16</td>
<td>7.39 I:G=0.14</td>
</tr>
<tr>
<td>Tryglycerides(mg/dl)</td>
<td>89</td>
<td>150</td>
</tr>
<tr>
<td>HDL-cholesterol(mg/dl)</td>
<td>40</td>
<td>41</td>
</tr>
<tr>
<td>HOMA-IR</td>
<td>4.3*</td>
<td>2.8*</td>
</tr>
</tbody>
</table>

*HOMA-IR*
Fig 8: FBS, Testosterone, SHBG

Fig 9: LH, FSH, DHEAS, Serum Insulin
Fig 10: Lipid profile

Fig 11: USG report
Fig 12: Urine report suggesting Pregnancy

Fig 12a: USG report suggesting early gestation
Discussion
Fertility tends to decrease with increasing age in both men and women due to social, biological, physical and mental, emotional and iatrogenic factors, adversely impacting the child-bearing process. Here is a case of secondary infertility, successfully treated with evidence based Homeopathic medicine showing the usefulness of homeopathy in the management of infertility due to PCOS.

Anit a lu et al. [10] shown effectiveness of homoeopathy in treatment of PCOD with infertility. Homoeopathic constitutional remedies were successful in treating 17 out of 20 PCOD cases testing positive for Urine Pregnancy Test and USG of pelvis.

Role of homoeopathy in the management of PCOS and infertility has been well reported in literature. Different homoeopathic medicines in different strength have shown encouraging results. In different case reports, role of Cal carb [11], Pulsatilla [12] and aurum met [13] have resulted in successful pregnancy and normal delivery.

There are several other studies which have successfully managed the cases of PCOS. Study of Gupta et al14 shows homoeopathy treatment helps to manage pcos cases. CCRH15 study shows very good result homeopathy in verum group than placebo group for PCOS.

The present case of PCOS with secondary infertility has been successfully managed with sepia. The strength of 30 th to 1M potency resulted in regulation of menstrual cycle, reduction in testosterone level and Ferrimen Galloy Score, ovarian volume, normalization of ovarian pattern and improvement in insulin sensitivity as shown in table 3 where conception took place after prescribing 2 doses of 10 M of sepia. Similar effectiveness of sepia has been reported earlier in a case of hypothyroid with PCOD and secondary infertility [13].

This patient was a “classical” case of PCOS phenotype, characterized by truncal obesity, hyper-androgenism, oligo-amenorrhea, hirsutism, FSH/LH inversion and early insulin resistance.

The classic sign and symptoms, ultrasound pattern and hormonal as well as biochemical parameters before and after treatment are shown in table 3.

In this case Glucose insulin ratio-6.094 (fasting G/I ratio was > 4.5.) [16, 17] showing insulin resistance. However, LH/FSH ratio was within normal limits. F.S.H. - 6.19ng/dl, L.H. – 11ng/dl which is altered as with PCOS we often see the FSH in the range of about 4-8 as well - but often the LH levels are 10-20 [18].

Testosterone level in female above 19 years is 8-60ng/dl. In this case testosterone level is higher than normal range [19]. Hence this case is a severe type PCOS.

However, AMH is an essential criterion for diagnosis of PCOS which has not been evaluated. AMH levels are found to be significantly higher in PCOS patients with hyperandrogenism than without hyperandrogenism; indicating that hyperandrogenism is associated with an extra increase in AMH. This may reflect...
the severity of disruption of folliculogenesis in patients with hyperandrogenism. Serum AMH levels may be related to the severity of the syndrome because they have been observed to be higher in women with insulin-resistant PCOS than in patients with normal insulin sensitivity (Fleming et al., 2005). This case has many factors contributing to infertility i.e., PCOS, age and obesity. Still, homeopathic medicine Sepia helped to had conception. This presented case is a good example for efficiency of homeopathic medicine Sepia for infertility. This case may boost the confidence of practitioner and new comers. This case implies that how homeopathy can give a sustainable positive effect on infertility patients.

**Conclusion**

Homeopathy has been found to be effective by several other works in such cases. The present case report clearly reiterate the role of individualized homeopathic treatment in the management of PCOS with secondary infertility.

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