Clinical observation on acupuncture with Herbal medicine for the treatment of women as combined medication for genetic basis of infertility: A case series in Puducherry, South India

T. Janarthanan & Dr. Usharani.B

Department of Anthropology, University of Madras, Chennai (India)
Department of Genetics, Dr. ALM GPIMS Campus, University of Madras, Taramani, Chennai (India)

1. Introduction

Women in their childbearing years who have not been able to conceive after 1 year of unprotected intercourse are considered infertile according to the Centers for Disease Control and Prevention (CDC). The CDC reports that 6.7 million women aged 15 to 44 years have impaired fecundity, and 1.5 million married women are infertile. Worldwide, 15% of couples are reported as infertile. In general, 27% of cases of infertility are caused by ovulation disorders; 25%, male factors; 22%, tubal disorders; 17%, unexplained factors; 5%, endometriosis; and 4%, other factors. According to Williams Gynecology, women who have not previously been able to conceive are considered to have primary infertility. Those who have previously conceived, whether or not the pregnancy was successful, are considered to have secondary infertility.

Average fertile women (aged 22-40 years) who have coitus in the week prior to ovulation have a 20% chance of developing a clinical pregnancy during each ovulatory cycle. Fifty-seven percent of fertile couples will conceive in the first 3 months, 72% in 6 months, and 85% in 1 year.

Women whose infertility is unexplained have monthly fecundity rates of 10% to 15% with hormone therapy and Intra Uterine insemination (IUI). In Canada, Collins et al found that pregnancy rates for 873 infertile couples without any treatment were 35% after 3 years and 45% after 7 years. In the Netherlands, van der Steeg et al found that, overall, untreated infertile couples were able to achieve spontaneous pregnancy 29.5% of the time within 12 months. Katz et al reported that the incidence of infertility increases steadily in women after the age of 30.

Current options for treatment are dependent on the cause of infertility. Treatment options include fertility drugs, IUI, and In Vitro fertilization (IVF). However, these treatments come with several considerations. First, procedures such as IVF are invasive and carry risk of infection. Second, the treatments can be expensive; the median cost of IVF is $24,373. It is often not covered by insurance and frequently needs to be repeated. Success rates are approximately 38%, and the successes have a high rate of multiple births, which places increased risks on the mother and the fetuses. Even though fewer embryos are being implanted now than a decade ago, multiple pregnancy remains the single highest risk of IVF.

Polycystic ovary syndrome (PCOS) affects up to almost 27 percent of women during their childbearing years. It involves cysts in the ovaries, high levels of male hormones, and irregular periods.

2. Physiologic Factors in Infertility

Many of the issues that cause a woman to have difficulty with conception can be traced to scar tissue, fascial restriction, and congested lymphatics. Manual medicine has been used to manage these specific problems, but, to my knowledge, it has not been used to manage functional infertility. Part of the basic foundation of osteopathic medicine is that manual mobilization has an impact at the cellular level.

The symptoms of dysfunction in the reproductive system can manifest within the body as dysfunction of the reproductive organs, pelvic asymmetry, sacral dysfunction, bloating, or pain. Symptoms related to lymphatic congestion in the pelvic region with hormonal bias are dysmenorrhea,
premenstrual syndrome, ovarian cysts, emotional instability, and depression. Release of fascial and ligamentous restrictions can decrease pressure on blood vessels, thereby optimizing the vascular phase and improving the efficacy of the lymphatic system. This improved efficacy, in turn, aids in restoring optimal blood flow to the organs, normalizing the ability for hormone production.15

Decongestion of the lymphatic system can help remove waste from the organs and thus help normalize their function. Mobilizing fluid and cellular waste from the pelvic cavity should also allow hormones to arrive more efficiently at the target tissues. Within the reproductive system, this decongestion could theoretically lead to normalized hormone levels, normalized menstrual cycles, and pregnancy. To my knowledge, visceral manipulation, muscle energy, craniosacral therapy, and lymphatic drainage have not been investigated as options for the treatment of infertility; however, the treatment effects of these therapies on other parts of the body could be extrapolated to the pelvis and reproductive system. In the present prospective case series report, I describe the outcomes of 10 infertile women who were treated with manual therapy to the pelvic region.

3. Genetic Factors in Infertility

Differential diagnosis:

Genetic causes of female infertility include ovulatory disorders such as Kallmann syndrome, fragile X syndrome, as well as karyotype abnormalities, and primary ciliary dyskinesia. Infertility can also be noted as a minor manifestation in many other genetic conditions including galactosemia, mucopolysaccharidosis,Prader-Willi, cystic fibrosis, pseudohypoparathyroidism type 1a, progressive external ophthalmoplegia, autoimmune polyglandular syndrome type I, ovarian leukodystrophy, ataxia telangiectasia, Demirhan syndrome, and blepharophimosis-ptosis-epicanthus inversus syndrome.

Genome-wide associations:

Genome-wide association studies (GWASs) have been used to elucidate the genetic etiology of premature ovarian failure. Candidate genes have been identified; however, the small size of these studies has limited the statistical power of their results. Array comparative genomic hybridization (a-CGH) analysis is also being researched on cohorts of women with premature ovarian failure for analysis of copy number variants (CNVs) over the genome. A number of potential candidate genes including PTHB1 and ADAMTS19 have been identified in this fashion, although larger follow-up studies are needed to confirm these findings.

4. Materials and Methods

Case study: Among 104 patients divided as control and treated group for case study. Both groups were administered by giving Traditional Indian medicines derived from several herbs. The Botanical names of few important basic herbals used in our treatment are SaracaAsoca, FicusGlomerata, Syzygiumcumini, TribulusLanuginosus.

The chemical components in SaracaAsoca are Fatty acid (in flowers), Gallic Acid, Pelargonidin, Quercetin, Phytosterols, Tannin, Catkin, Leucocyanidin. The FicusGlomerata contains rich Sterols.

The Syzygiumcumini contains Ascorbic acid, Folic acid, Niacin, Alanine, Glutamine, Alpha Terpineol, Ocimene.

The chemical components in TribulusLanuginosus are Saponin, Glucosides, ChlorogenicAcid, Diosgenin, Gracilin, Drilline, Stingose.

The above chemicals made a change in the metabolism of the patient’s body which induces the fertility and suppress or eradicate the genetic problem which causes the infertility.

TheMoxibustionwas given periodically in specific points and Acupuncture treatments were given for treated groups of women with genetic infertility on specific points in the body. These points are differed for each patient and they are formulated by the pulse diagnosing. The main outcome is the incidence of chance of pregnancy after menstrual cycle. The evaluation for treated women according to the following protocol:

- assessed the pelvis for asymmetry and corrected asymmetry with muscle energy techniques, if needed
- assessed sacral mobility and corrected dysfunction with craniosacral techniques, if needed
- assessed for trigger points around and within the pelvis and treated trigger points with positional release techniques, if needed
- assessed lymph drainage of the pelvis and pelvic organs and applied manual lymph drainage techniques, if needed
- assessed mobility and motility of pelvic viscera and used fascial techniques to release restrictions, if needed

5. Results & Discussion

None of the control women achieved pregnancy during the non-acupuncturecycles. But fourteen of the genetic infertile womenpatientswith PCOS and the age above 35, chromosome abnormalities undergone for the combined therapy acupuncture successfully attained the pregnancy in the 1st trimester. There were no adverse reactions observed in the women during acupuncture cycles. These results revealed the pregnancy rate increased up to 69% and the chance of higher ovulation rate.

<table>
<thead>
<tr>
<th>S. NO</th>
<th>Methods</th>
<th>Control Group (50)</th>
<th>Treated Group (50)</th>
<th>% of pregnancy in 1st Trimester</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Acupuncture</td>
<td>nil</td>
<td>given</td>
<td>69% Treated groups</td>
</tr>
<tr>
<td>2</td>
<td>Oral Indian herbal medicine</td>
<td>given</td>
<td>given</td>
<td>69% Treated groups</td>
</tr>
</tbody>
</table>
6. Conclusion

Our findings suggest that both the acupuncture combined with medication and oral administration of Indian herbal medicine has increased the chance of ovulation rate in the genetically infertile women. This treatment may solve the socioeconomic problems for women with genetic based infertility in low cost effectiveness.

Acknowledgements:
we wish to thank Dr. S.Sumathi , Professor & Head, Department of Anthropology, Syndicate member & Vice-Chairperson of University of Madras for her Academic caring and Inspiration.

References