

PHYSIOTHERAPY IN FERTILITY TREATMENT - INSIGHT ON MERCIER THERAPY

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ABSTRACT--According to Indian Society of Assisted Reproduction States that infertility currently affects 10 to 14 % of the Indian population, with higher rates in urban areas; nearly 27.5 million couples actively trying to conceive but suffer from infertility because of PCOS, endometriosis and menstrual irregularities. Since there is a decreased success rate for various assisted reproductive techniques; 'Mercier therapy' a physiotherapy regimen helps to improve the reproductive function. This study aimed to determine the effectiveness of Mercier Therapy; an innovative visceral manipulating technique that assists the fertility treatment. It is a quasi-experimental study design. 20 subjects following fertility treatment through oral medication were recruited with the reference from the gynecologist. Subject's aged between 24 to 30 years and Diagnosed with PCOS were included. Subjects were collected through consecutive sampling manner and allocated in two groups of 10 each according through odd and even method; Group A (Controlled group) and Group B (Interventional group). Controlled group received normal fertility treatment alone. Interventional group received fertility treatment along with Mercier therapy, an innovative technique was given for a period of 5 months. After 5 months all subjects were investigated with ultrasound scan and observed for the ovarian follicle's development. After 5 months duration, 6 women from the Interventional group showed ovarian follicle development in ultrasound than those of 3 women in control group. Based on the above-mentioned result we conclude that Mercier therapy is valid in helping to women for cycle optimization. However further research is required for validation of the study.

KEY WORDS-- Polycystic ovarian syndrome (PCOD), Endometriosis, Mercier therapy, ovarian follicle development.

I. INTRODUCTION

According to Indian Society of Assisted Reproduction States that infertility currently affects 10 to 14 percent of the Indian population, with higher rates in urban areas where one out of 6 couples is impacted. Nearly 27.5 million couples actively trying to conceive suffer from infertility⁽¹⁾. The World Health Organization (WHO) also says that one in every four couple in India was affected with infertility⁽²⁾. Major causes for infertility in women were due to Ageing, Failure to Ovulate, Problems in the Menstrual Cycle, Infection, Implantation Failure, Endometriosis, and Polycystic Ovary Syndrome (PCOS)^(3,4). Statistics shows that in normal infertility population, about 25% of women were affected by endometriosis. Endometriosis is a condition in which the tissue that lines

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the uterus grows in other parts, usually in pelvis. Scar tissue can form adhesions which can stick the pelvis structure together. It affects fertility by damaging the ovaries, blocking the fallopian tube^(5, 6). Statistics says that polycystic ovarian syndrome affecting about 20% of the females visiting a fertility clinic. The common symptoms of PCOS were menstrual irregularities, low ovarian follicle development and hormonal imbalance^(7, 8). Though the infertile women underwent many assisted reproductive techniques like oral medications, in-vitro fertilization (IVF) and intrauterine insemination(IUI) yet there is a low positive outcome. So, a natural option to help women who have struggles with infertility can improve the health of their reproductive system by an innovative technique “Mercier therapy” a physiotherapy regimen⁽⁹⁾.

Mercier therapy was created by Dr.JenniferMercier.Mercier Therapy “is a deep, gyno-visceral pelvic manipulation that addresses adhesions, scar tissue, hormonal imbalances, and the malalignment of the reproductive organs while increasing blood flow and circulation to the pelvic floor,” For women facing endometriosis and polycystic ovarian syndrome (PCOS) , two of the most prevalent root causes of infertility, this manipulation can alleviate symptoms and restore the woman to health in conjunction with lifestyle changes and medical care^(8,10,11).Mercier therapy is a noninvasive technique. This gentle and noninvasive technique is beneficial for women facing fertility challenges^(9,11,12). Since there is 11% of successive rate in fertility treatment, an innovative pelvic manipulation which is the Mercier therapy can help to enhance the normal reproductive function. This study aimed to determine the effectiveness of Mercier therapy; an innovative manipulative technique assists the fertility treatment^(9,15).

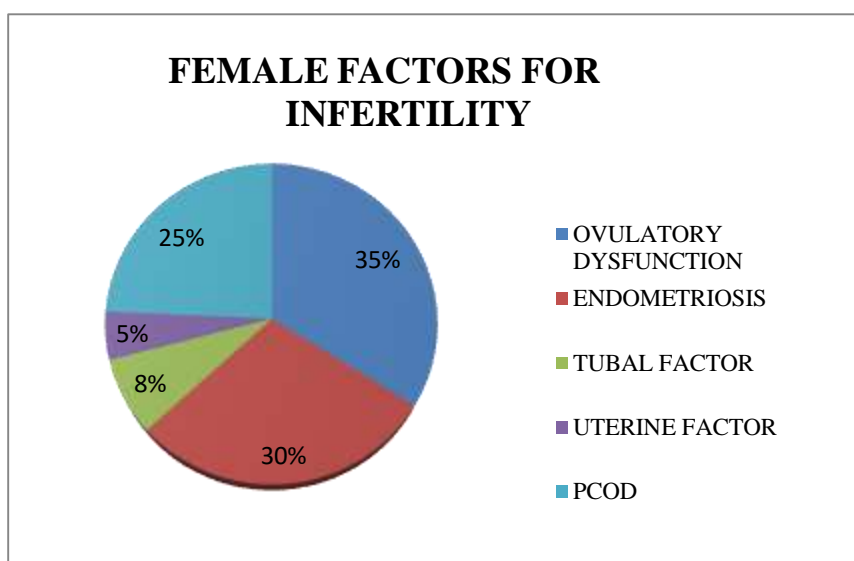


Figure 1.1: SHOWS PERCENTAGE OF CAUSES FOR INFERTILE WOMEN

II. METHODOLOGY

This is a quasi-experimental study design. 20 subjects following fertility treatment through oral medication were recruited with the reference from the gynecologist. Subjects aged between 24 to 30 years were taken. The subjects diagnosed with polycystic ovarian syndrome, endometriosis and irregular menstrual cycle were included in this study. The subjects diagnosed with carcinoma and fertility defect with their respective partner (male) were excluded.

Subjects were collected through consecutive sampling manner and allocated in two groups of 10 each according to odd and even method. Group A is the controlled group and the group B is the interventional group. The subjects under controlled group received normal fertility treatment alone that is they have only their oral medications. The subjects who were in interventional group received fertility treatment (oral medication) along with the gynovisceral manipulative technique, Mercier therapy.

The Mercier therapy protocol include, 1-hour session completed within a 1-6-week period in which the abdomen is worked upon to accomplish the goal of releasing organ restriction. The treatment takes place on the outside the body around the pelvis's various areas and organs. It ensures that organ in the pelvic area have the right position, full mobility and blood flow for optimal function. The Mercier therapy is given for a period of 5 months. Group B subjects underwent at least 1-hour session of Mercier therapy for 5 months.

After 5 months of this gynovisceral manipulative technique Mercier therapy and oral medications all the 20 subjects were investigated by gynecologist Dr. Lopamudhra with ultrasound scan and observed for the ovarian follicle development.

III. RESULT

There is statistically significant evidence of ovarian follicle development for the subjects under interventional group. There is also evidence of ovarian follicle development for the subjects under controlled group. The evidence of ovarian follicle development were assessed radiologically through ultra sound in subsequent follow up of patients from both groups. There is statistically significant difference in the improvement of ovarian follicle development for the subjects having oral medication along with Mercier therapy than those of having oral medication alone.

This graph shows the ovarian follicle development of all 20 subjects in both groups who were monitored through ultrasound imaging.

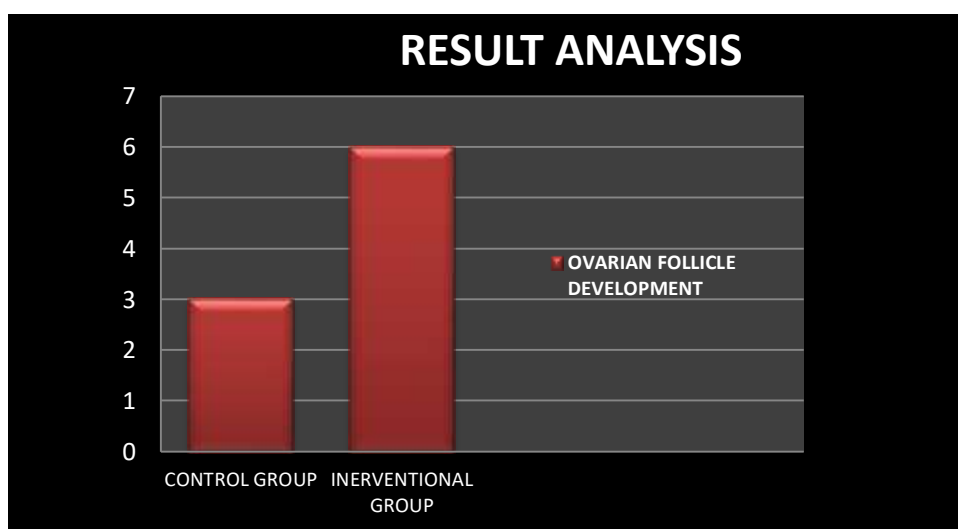


Figure 2: the ovarian follicle development of all 20 subjects in both groups who were monitored through ultrasound imaging.

IV. DISCUSSION

Based on the data collected it is found that ovarian follicle development is assessed through ultrasound imaging method. All the 10 patients in interventional group who received Mercier therapy and oral medications were assessed periodically every month for the period of 5 month through ultrasound imaging method for the ovarian follicle development.

Out of 10 patients in the interventional group 2 patients showed ovarian follicle development in 2 months duration and another 4 patients showed ovulation formation in 5 months duration. Out of 10 patients in the control group 3 patients in control group also showed evidence of ovarian follicle development through ultrasound method after 5 months duration.

Mercier therapy is valid in helping to women for cycle optimization. However further research is required for validation of the study.

SUBJECTS	OVARIAN FOLLICLE DEVELOPMENT	
	AFTER 2 MONTHS	AFTER 5 MONTHS
A-CONTROL GROUP	NIL	3
B-INTERVENTIONAL GROUP	2	4

V. CONCLUSION

Based on the above result obtained, it is found Mercier therapy can be used as an adjunct in reproductive function of women along with medications. However more high-quality research needs to be conducted in order to come up with specific outcome on gynovisceral manipulative technique.

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