Case study

A Case Report On Primary Infertility With Hypothyroidism And Diabetes Mellitus

ABSTRACT-

Introduction*: Infertility is the inability, by natural means, of an animal to reproduce. Typically, adult species are not in their normal state of health. A woman who is unable to conceive well will define infertility as unable to bear a full-term pregnancy. Because of any ejaculating disease, and any declining sperm count, men are directly liable for 30-40% infertility.The WHO estimates the overall prevalence of primary infertility in India at 3.9% and 16.8%. Fertility estimates differ widely between India and 3.7% in utter-pradesh and Maharashtra.**Case presentation:**On 9/12/2020, Mrs. SonamShirsat, a 38-year-old female came for In Vitro Fertilization with a known case of primary infertility in AVBR Hospital, Wardha. Her complaint was inability to conceive for 4 years, irregular menses, headache, sleep disturbance, loss of appetite.She was admitted for in-vitro fertilization therapy for the 2nd cycle. Mrs. SonamShirsat has a history of hypothyroidism for 8 years for which she has been taking Thyrox 50mg OD tablet and has Diabetes Mellitus for one year since she is taking Metformin 500mg BD tablet.Instead, she has no concerns about asthma, tuberculosis, epilepsy, etc. On 9/12/2020, Mrs. Sonam underwent an embryo transfer.**Diagnostic Evaluation:** The diagnostic hysteroscopy was conducted at the private hospital in Amravati 2 years ago. She has been diagnosed with nullipara for 4 years as a primary infertility. She has already undergone 2 cycles of Intra Uterine Insemination (IUI) and 1 cycle of in vitro fertilization.**Hysterosalpingography:**Both fallopian tubes are normal & patent uterus is normal**Conclusion:**There is multifactorial infertility. In both men and women, anatomy, physiology, the environment, hormones and genetics all play a role in causing infertility. Therefore, in the coming years, it is a very important problem and research in this zone is very essential.*

Key words- *Infertility, Primary infertility, Hypothyroidism,Diabetes mellitus.*

INTRODUCTION

Mrs. SonamShirsat, 38-year-old girl, with a reported case of primary infertility in Acharya Vino Bhave Rural Hospital, came for IVF treatment on 9/12/2020 with a key complaint of 4-year inability to conceive, irregular menses, headache, sleep disturbance, loss of appetite. She was admitted for in-vitro

fertilization(IVF) therapy for the 2nd cycle. Mrs. SonamShirsat has a history of hypothyroidism for 8 years for which she has been taking Thyrox 50mg OD tablet and has Diabetes Mellitus for one year since she is taking Metformin 500mg BD tablet. Instead, she has no concerns about asthma, tuberculosis, epilepsy, etc.On 9/12/2020, Mrs. Sonam underwent an embryo transfer. The diagnostic hysteroscopy was conducted at the private hospital in Amravati 2 years ago. She has been diagnosed with nullipara for 4 years as a primary infertility. She had previously undergone 2 cycles of Intra Uterine Insemination (IUI) and 1 cycle of In-vitro Fertilization (IVF), but that was not possible.Menarche's age is 14 years and her LMP is 23/11/2020. All patient physical measurements were normal for physical examination. Hypothyroidism and diabetes mellitus have been diagnosed as primary infertility in patients.

Signs and symptoms was inability to conceive for 4 years, prolonged menstruation, headache, disruption of sleep, lack of appetite. All basic blood tests were regular diagnostic examination of the patient except WBC shows monocytopenia, granulocytopenia, lymphocytopenia, Thyroid Stimulating Hormone level also shows hypothyroidism and prolactin level was increased. The impression of hysterosalpingography indicates that both fallopian tubes are natural with normal uterine cavity.

Management:

Assisted reproductive technology involves, by artificial or partially artificial means, all approaches used to achieve conception. For the treatment of infertility, it includes stimulation of gametes and embryos outside the body.In ART, either IUI or the fertilization of the oocytes in the laboratory setting as in IVF bypass the mechanism of intercourse. In vitro fertilization is a mechanism by which sperm outside the body is fertilized in vitro by an egg.A long thin sterile tube with a syringe at one end, "test tube babies" is a colloquial term for babies born as a result of IVF. One or more embryos suspended in a drop of culture are drawn into a transfer catheter.The tip of the transfer catheter is directed through the cervix and brings the fluid containing the embryos into the uterus cavity.

Nursing care- Thorough medical history and physical assessment

- Perform blood tests and hormonal tests in patients receiving IVF and transfer of embryos
- Evaluation of contraindications for different medications, situations of prudent use, and probable drug interactions

- Therapeutic outcomes track
- Decrease in infertility symptoms such as anovulation, irregular menstruation, maintenance of T3 and T4 levels
- Medical outcomes should be confirmed by radiological tests.
- Observe the absence of clinical therapy response, suggesting potential drug resistance
- • Adverse Effect Control
- Instruct patients about the adverse effects that should be promptly reported to the doctor.
- Take medicine exactly as ordered, every day at the same time.
- Emphasize the value of strict adherence to the disease or cure improvement regimen
- Emphasize self-care for patients, including proper nutrition and rest.

Prevention should be taken since, even after a full course of care, infertility rates remain very high.

Diet should be advice-Energy rich foods-

Carbohydrate and fats: seeds of whole grains, millets, edible oils, ghee, butter, nuts and oils, sugar seeds. For protein: Pulse, nuts, milk and milk products, meat, fish, poultry, and some oilseed. Protective foods: minerals and vitamins,green vegetables, fruits. Eggs, milk and milk products and food for flesh

Discussion-

This study shows that T. Mohana and R. YuvaraniPublished on: 08.August.2020‘Assessment of etiological factors of female primary infertility’Age: In the 21-29 age group, the rate of infertility in women was around 76 percent. Menarche This study found that, in the age group of 12 to 14 years, the highest number of females achieving menarche. In our research, it is found that there is a close association between infertility and BMI, as BMI increases in the population, the prevalence of infertility increases. 22 percent of women have a BMI over 30 (obese). Above 30. In our study, 8 percent of women had hydrosalpinx, 4 percent of women had fibroids, and 6 percent of women had polyps. We observed that 4% of women had single-sided blocks of the fallopian tubal and 2% had bilateral blocks of the fallopian tubal.Conclusion:In the modern era of the economically growing world, we have concluded that infertility prevalence is about 76 percent in the women's 21-29 age group, 40 percent of women attained menarche at 12-14 years, 8 percent observed hydrosalpinx, 6 percent polyps, and 4 percent fibroids.

In this study shows that Priyanka Sanjay Deshpande and AlkaShantiprakash Gupta Posted on: 17 December 2019 Article nameThe causes and prevalence of public health factors that cause infertility. Main infertility (57.5%) was more prevalent than secondary infertility (42.5 percent). The female factor accounted for 46.6% of the cases of polycystic ovarian syndrome (PCOS), the main cause of which was (46 percent). In 46.6% of cases of polycystic ovarian syndrome (PCOS), the female factor was the leading cause of infertility.There was an important correlation between infectious factors such as pelvic inflammatory disease and tuberculosis and tubal factor infertility in lean and obese PCOS cases ($P < 0.001$).n. Infertility of the tubal factor was significantly associated with infectious causes such as pelvic inflammatory disease and tuberculosis ($P = 0.001$). As the age of marriage increased, the causes of infertility shifted.Poly Cystic Ovarian Syndrome was the primary cause in couples married for less than 5 years, while male factor and unexplained infertility were the most frequent triggers later seen. 20 percent of cases of infertility attributed to the male factor, and abnormal semen reports were significantly associated with both tobacco and alcohol consumption ($P <0.001$).

Conclusion: There is multifactorial infertility. In both men and women, anatomy, physiology, the environment, hormones and genetics all play a role in causing infertility. Therefore, in the coming years, it is a very important problem and research in this zone is very essential. Infertility is the inability to a person animal to reproduce by natural means. It is usually not to natural state of health adult organism.

COMPETING INTERESTS DISCLAIMER:

Authors have declared that no competing interests exist. The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

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