



Case Report on Previous Invtro-Fertility Conception with Secondary Infertility with Hypothyrodism For Embryo Transfer Done

Ms. Pratibha Wankhede^{1}, Ms. Seema Yelne^{1*}, Ms. Seema Kolhe^{1*}, Mrs. Minakshi Choudhary^{1*}, Ms. Madhuri Khadatkar^{1*}*

¹Shalinitai Meghe College of Nursing Salod (Hirapur) Wardha
Datta Meghe Institute of Higher Education and Research, Wardha
Email: pratibhawankhede22@gmail.com

ABSTRACT

Introduction

Thyroid disease is one of the most frequent endocrine disorders affecting women in their reproductive years.

Certain vital hormones aren't produced enough by the thyroid gland. Low thyroid hormone levels can obstruct the release of an egg from the ovary, reducing fertility. Hypothyroidism has long been linked to monthly irregularities and in vitro fertilisation (IVF). Treatment of hypothyroidism with thyrox generally restores a normal we a start and improves fertility ¹

Patient's medical history

The 32-year-old female patient was admitted to AVBR hospitals obstetrics and gynaecology ward on April 20, 2022, with a major complaint of widespread headache for 3 days, amenorrhoea for 7-5 months, weakness, and breathing.

Blood and urine tests, ultrasonography, anta natal mother (ANC) report, and final diagnosis were all performed.

32-year-old gravida 2 para 1 death 1 with 3.2- weeks before invtro-fertility and hypothyroidism for embryo transfer

Pharmacology

Antibiotics, iron supplements, and gastric proton pump inhibitors were given to the patient, which helped to improve the nervous system's health, improve metabolism, and strengthen the immune system and numerous body functions. Anti-platelet, increases calcium reserves in the body directly. binding to specific thyroid hormone-responsive regions in target gene promoters and regulating transcription, limiting the growth of pathogenic microbes in the gut by generating lactic acid ,C-tax 200 mg BD, Neurobion forte 200 mg OD, Capsule Iron 400 mg OD, Pan 40 mg BD, Duphastion 1 BD, Ecosprin 150 mg OD BD calcium 500mg tablet, OD thyrox 100mg tablet, OD sporlac tablet

Nursing supervision

Monitor vital signs, nutritional status, and random blood sugar levels, as well as oxygen therapy, patient bed rest, and pain management.

Conclusion

The patient was admitted to AVBR hospital in the obstetric and gynaecology ward with the chief complaint of generalised weakness, headache since 3 days, amenorrhea since 7-5 months, and breathlessness. Immediate treatment was started by a health team member, and all possible treatments were given, and the patient's condition is now satisfactory. Hypothyroidism has long been linked to monthly irregularities and in vitro fertilisation (IVF). Treatment of hypothyroidism with thyrox generally restores a normal we a start alteration and improves fertility.

Introduction

Primary and secondary infertility are the two forms of infertility. Infertility prevention, diagnosis, and treatment are all part of fertility care. Primary infertility occurs when a woman has never been pregnant; secondary infertility occurs when she has had at least one previous pregnancy ²

Equal and fair access to fertility care is a concern in most countries, particularly in low and middle-income countries. In national universal health care programmes, fertility care is rarely a top concern.³

Hypothyroidism (underactive thyroid) is a condition in which thyroid hormone (thyroxin) synthesis is unusually low. Thyroid cancer is the most frequent type of thyroid cancer. Low thyroid hormone levels slow metabolism (the way energy is used) and raise the risk of other health problems like heart disease and pregnancy complications.⁽⁴⁾

Embryo transfer is a phase in assisted reproduction that involves implanting embryos into a woman's uterus to begin a pregnancy. This approach (which is typically used in conjunction with IVF) can be employed on humans or animals, and the goals can vary depending on the situation. Thyroid illness is one of the most frequent endocrine conditions that women experience during their reproductive years.⁽⁵⁾

Certain vital hormones are not produced in sufficient amounts by the thyroid gland. Thyroid hormone deficiency can prevent an egg from being released from the ovary, resulting in reduced fertility. Hypothyroidism has long been linked to monthly irregularities and in vitro fertilisation (IVF). The use of thyrox to treat hypothyroidism frequently boosts fertility, and returns the system to its original state. Incidence: Over hypothyroidism affects roughly 0.3 percent to 0.7 percent of the population, with an additional 2% to 7% of women. Hypothyroidism has long been linked to menstruation irregularities and infertility (6-9% of women for in vitro fertilisation with a higher THS level).⁽⁶⁾

Patient and observation

Patient's current history: A 32-year-old female patient was admitted to AVBR hospital's obstetric and gynaecology department on April 20, 2022, with a chief complaint of generalised weakness for 3 days, amenorrhea for 7-5 months, headache for 3 days, and shortness. All tests were performed, including blood and urine tests, and the diagnosis was found to be gravid 2para 1 death 1 with previous invtro-fertilization conception with secondary infertility and hypothyroidism from an embryo transfer performed on 4/10/21.

Past medical history: The patient had no history of communication diseases such as hypertension, diabetes, tuberculosis, and so on. The patient was apparently fine 2 months ago when she had her first episode with invtro-fertilization with hypothyroidism and infertilities treatment taken from a private clinic in Hinganghat for 2-3 years, then taken from Nagpur, hysteroscopy done, invtro-fertilization conceived 1 year and 7 months taken treatment and hypo Both male babies died after birth without crying the first time, and the second time he died while receiving infertility treatment at the AVBR hospital. Causes : Low thyroxin or T4 levels levitated thyroid – producing hormones. Inability to conceive due to no egg being released during ovulation or an irregular egg release

Clinical finding : patient case was unhealthy she is admitted for Amenorrhoea is a condition in which a woman is unable to have children and also have problem in Abdominal pain , PV Bleeding , Face and leg swelling since 10 days ,Headache sometime ,Difficulty walking because more have swelling on the legs .

Diagnosis assessment

On the basic patient historical data has been gathered. physical examination is performed, and in vitro fertilisation (IVF) is performed, blood test ,Ultrasonography is carried out biochemistry report has been completed, microbiology report has been completed, NC –Ultra-sonography they are find out case and Fetal no -single ,Lie-single ,Placenta –fundo-ANT gravid 1,Cardiac activity –present ,Presentation variable ,Spine -normal ,Fatal moment –present ,Liqueur –adequate ,Measurement :Avg. gestational age -19 weeks 2 day .Effective weight :287 GMS .Observed fatal anatomy :normal. Observed maternal anatomy : normal

Impression –single intrauterine line foetus of average gestational age of 19 weeks 2 days and corresponding to weight of 287GMS.

Therapeutic intervention

Patient case took the Medical management with hypothyroidism tablet thyrox 100 mg OD,C-tax 200 mg BD, Neurobion forte 200 mg OD, Capsule Iron 400 mg OD daily , Pan 40 mg BD, Duphastion 1 BD, Ecosprin 150 mg OD BD calcium 500mg tablet daily and continuously ,OD sporlac tablet is continuously .

Medical care is provided.

The nurse incharge of prescribing medication to reduce the patient's mental effects Pharmacological therapy and its effects are determined, and these are used to evaluate clinical effectiveness in nursing. The patient is given bed rest; the patient is provided oxygen therapy. Support for the patient's mental health. Provide stress relief suggestions to the patient, such as (music)Nursing assessment: In vitro fertilisation causes acute pain; Excessive fluid collection on the foot and face causes swelling. Joint pain causes decreased mobility. Insufficiency of comfort as a result of a headache.

Potential complication/collaborative dilemma

- 1) Discomfort
- 2) Amenorrhea
- 3) Bleeding

Discussion

The 32-year-old female patient was admitted to AVBR hospital's obstetric and gynaecology ward on April 20, 2022, with a major complaint of widespread headache for 3 days, amenorrhoea for 7-5 months, weakness, and breathing. Blood and urine tests, ultrasonography, anta natal mother (ANC) report, and final diagnosis were all performed. patient have 32-year-old gravida 2 para 1 death 1 with 30.2-weeks before invtro-fertility and hypothyroidism for embryo transfer and Thyroid dysfunction is a prevalent cause of infertility that can be readily corrected by adjusting thyroid hormone levels . . In established hypothyroidism, thyroxine hormone therapy is the preferred treatment option. It boosts the conception rate by regulating the menstrual cycle and PRL levels. As a result, after 6 weeks to a year of treatment for hypothyroidism, 76.6 percent of infertile women with hypothyroidism conceived. We attempted to maintain normal TSH levels, and TSH measurements at 6 to 8 weeks intervals were used to assess compliance and adequacy of hypothyroid medicine dose(1) As a result, normal TSH levels are one of the pre-requisites for fertilisation. Infertile women can justify starting thyroid replacement medication early if they have subclinical hypothyroidism. Acharya et al. reported on a few of the related studies. In most cases, clinical hypothyroidism is asymptomatic. Rather than undergoing a battery of hormone tests and costly invasive treatments, this group of infertile women could benefit substantially from being correctly diagnosed and treated for hypothyroidism. More large-scale research with long-term follow-up should be considered. to confirm the discrepancies in TSH and PRL levels in order to effectively manage the reasons of infertility (7)

Conclusion

Pregnancy generated by in vitro fertilisation increases the risk of gestation hypothyroidism, as well as potentially deadly complications such as uterine growth limitation, and Outcome after an embryo transfer, the two-week wait is often filled with emotional, stressful, and taxing ups and downs Although certain early signs of the procedure's success, such as minor bleeding, spotting, and cramps, could indicate that it was a success. A positive pregnancy test is the only method to know for sure if you're expecting. The patient is expecting a child

Reference

1. Hypothyroidism: A Woman's Guide to Fertility and Pregnancy [Internet]. [cited 2022 Jun 22]. Available from: <https://www.healthline.com/health/hypothyroidism/womans-guide-to-fertility-and-pregnancy>
2. Infertility Causes: Types, Risk Factors, Diagnosis & Treatment [Internet]. [cited 2022 Jun 22]. Available from: <https://my.clevelandclinic.org/health/diseases/16083-infertility-causes>
3. Infertility [Internet]. [cited 2022 Jun 22]. Available from: <https://www.who.int/news-room/fact-sheets/detail/infertility>
4. Hypothyroidism (Underactive Thyroid) | NIDDK [Internet]. [cited 2022 Jun 22]. Available from: <https://www.niddk.nih.gov/health-information/endocrine-diseases/hypothyroidism>
5. Recurrent Implantation Failure: The Role of the Endometrium - PMC [Internet]. [cited 2022 Jun 22]. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4227974/>
6. Koyyada A, Orsu P. Role of hypothyroidism and associated pathways in pregnancy and infertility: Clinical insights. *Tzu-Chi Med J.* 2020 Apr 10;32(4):312–7.
7. (PDF) Prevalence of hypothyroidism in infertile women and evaluation of response of treatment for hypothyroidism on infertility [Internet]. [cited 2022 Jun 22]. Available from: https://www.researchgate.net/publication/239944205_Prevalence_of_hypothyroidism_in_infertile_women_and_evaluation_of_response_of_treatment_for_hypothyroidism_on_infertility
8. Scoccia B, Demir H, Kang Y, Fierro MA, Winston NJ. In Vitro Fertilization Pregnancy Rates in Levothyroxine-Treated Women With Hypothyroidism Compared to Women Without Thyroid Dysfunction Disorders. *Thyroid.* 2012 Jun;22(6):631–6.