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Case Report

세포교정영양요법(OCNT)을 이용한 난임 개선 사례

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Improvement in Infertility Through the Application of Ortho-Cellular Nutrition Therapy (OCNT)

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ABSTRACT
Objective: Case report on improving infertility through Ortho-Cellular Nutrition Therapy (OCNT).
Methods: OCNT was administered to a 38-year-old Korean woman presenting with infertility.
Results: Approximately four months after initiating OCNT, she achieved natural pregnancy and gave birth to a healthy baby in June 2024.
Conclusion: The application of OCNT may be beneficial for patients experiencing infertility.

Keywords: Ortho-Cellular Nutrition Therapy (OCNT), Infertility, Uterus, Natural Pregnancy

Introduction

A woman's reproductive organs consist of the ovaries, fallopian tubes, oviducts, uterus, and vagina. The ovaries periodically release mature eggs, which then travel to the uterus through the fallopian tubes and oviducts. At this time, the body produces estrogen and progesterone, types of female hormones. These hormones thicken the endometrium and prepare the body for the sequential processes of pregnancy, such as fertilization, embryo development, implantation, and subsequent stages.[1]

Infertility refers to a condition where a couple engages in regular, normal sexual activity for at least one year without using contraception but does not achieve pregnancy. The causes vary by sex. In women, these can include fallopian tube problems, diminished ovarian function such as premature ovarian failure or polycystic ovary syndrome (resulting in ovulatory dysfunction), uterine lining abnormalities such as endometrial polyps, cervical issues, or uterine fibroids. In men, functional deficiencies of the testes caused by toxic substances, low sperm motility and survival, and hormonal imbalances are among the potential factors.[2]

The first step in examining and diagnosing infertility is taking a detailed medical history regarding the couple's current condition. This includes questions related to their sexual activity, such as the frequency and duration of attempts to conceive. Additional factors may be investigated in women, such as menstrual cycle, gynecological history, and age. Since fertility in women declines with age, this can be an important predictive factor for infertility. Tracking the menstrual cycle can help identify ovulatory cycles and anticipate conditions like polyps, fibroids, and endometriosis based on symptoms such as excessive menstruation or severe menstrual pain. Furthermore, if a detailed gynecological history does not reveal irregular menstruation or bleeding episodes, the infertility may be attributable to primary ovarian insufficiency. Thus, assessing a female patient's age, menstrual cycle, and gynecological history is crucial.[3]

Following the medical history, an assessment of general physical health and reproductive health may be conducted, with variations in test types between men and women. In men, a semen analysis can evaluate sperm motility and viability. Also, blood tests for antisperm antibodies, testosterone, and other hormones may be performed, along with testicular ultrasound and biopsy. In women, blood and urine tests can be used to measure thyroid-stimulating hormone, prolactin, gonadotropins, follicle-stimulating hormone (FSH), luteinizing hormone (LH), estrogen, and certain antibodies. Additionally, transvaginal ultrasound, cervical examination, and hysterosalpingography can be used to assess the fallopian tubes and uterus, thereby evaluating the reproductive organs.[3]

Through these methods, once infertility is diagnosed and the patient hopes to conceive, the appropriate treatment is administered according to the identified issue. If there are no abnormalities in the man's sperm or in the woman's uterus and fallopian tubes, the first step is to induce ovulation or superovulation using medication and then recommend timed intercourse. If pregnancy is not achieved in this manner, or in cases of mild endometriosis, cervical abnormalities, or unknown causes, intrauterine insemination (IUI) may be attempted. If this

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treatment is also ineffective or if in vivo fertilization is not feasible, in vitro fertilization-embryo transfer (IVF-ET), a form of assisted reproductive technology, will be performed.[4] If issues arise with sperm count, motility, or morphology, or if IVF-ET results are unfavorable, intracytoplasmic sperm injection (ICSI) may be considered.[5]

The patient in this case had previously undergone OCNT for infertility and achieved a successful pregnancy via IVF. Following continual OCNT, she later conceived naturally and gave birth. The patient's consent has been obtained to report this case.

Case Study

1. Subject

One case of infertility was studied.

1) Name: Ahn OO (38 years old / F)
2) Diagnosis: Infertility
3) Date of onset: July 2021
4) Treatment duration: May 2023 – October 2023
5) Primary symptoms: Infertility, tubal blockage, anxiety, nervousness
6) Medical history: Multiple failed infertility treatments; successful IVF and childbirth after previous OCNT
7) Social history: None
8) Family history: None
9) Medications and Treatments Applied: Taking medication for hypothyroidism and rheumatoid arthritis in the fingers.

2. Methods

Details of the OCNT administered to the patient are shown in Table 1.

Table 1. OCNT Administered to the Patient.

Duration / Product Name	1 ~ 3	4 ~ 5
Cyaplex A granules	101	101
Eufaplex Alpha Capsule	303	303
Calmaplex Granules	101	101
Collaplex Granules	101	101
Sulfoplex PK tablet	202	202
Diverol	-	020

*101: Twice a day, 1 tablet/capsule/sachet each in the morning and evening, 202: Twice a day, 2 tablets/capsules/sachets each in the morning and evening, 020: Once a day, 2 tablets/capsules/sachets at lunchtime, 303: Twice a day, 3 tablets/capsules/sachets each in the morning and evening.

After pregnancy was confirmed during OCNT, use of oral anti-rheumatic steroid medications was discontinued. The patient continued OCNT until after delivery.

Results

The patient in this case wanted to conceive but struggled with infertility due to poor egg and fallopian tube condition as well as underlying illnesses. Therefore, OCNT was administered to address these issues and promote a successful pregnancy.

By minimizing the rheumatoid-related medications she had been taking and implementing OCNT, she successfully conceived naturally in the fourth month, confirmed by her obstetrician. Afterward, she stopped her rheumatoid medications and continued OCNT, ultimately giving birth to a healthy baby via cesarean section in June 2024.

Discussion

This patient was a woman in her 30s who wished to have a child but was having difficulty due to infertility. In an effort to resolve this, she underwent three rounds of IVF at an infertility clinic. All attempts failed because of her poor health condition and suboptimal egg and sperm quality. However, from April 2022 to March 2023, she and her spouse continued OCNT for about one year, thereby improving ovarian function and enabling the retrieval of high-quality sperm and eggs. Consequently, she succeeded in IVF and gave birth to her first child.

Because she was relatively older for a woman of childbearing age, she hoped to have another pregnancy as soon as possible. She also expressed a desire for a natural pregnancy despite having been diagnosed with a blocked fallopian tube. For natural conception, the quality of sperm and eggs is indeed important, but creating a favorable uterine environment for implantation is equally critical. Therefore, for this round of OCNT, the focus was on enhancing uterine function and environment via antioxidant action and improved cell wall integrity to support a successful pregnancy. Furthermore, the patient was taking steroid medications due to finger rheumatoid arthritis. An imbalance in steroid levels during pregnancy has been linked to gestational diabetes.[6] In addition, some research has indicated that using steroid medications such as corticosteroids may increase the risk of miscarriage.[7] Hence, in order to help reduce her dependence on these medications, relevant aspects of OCNT were applied concurrently.

Aronia, used as the primary ingredient in Cyaplex A, contains abundant active compounds like proanthocyanidins and anthocyanins, which help eliminate free radicals and thereby strengthen the body's antioxidant capabilities. Studies administering aronia have shown a decrease in monocytes and neutrophils, markers of inflammation, suggesting it has anti-inflammatory benefits. Moreover, it has demonstrated antibacterial properties against various strains, including *E. coli*, *Staphylococcus aureus*, and *Salmonella enterica*. Through these advantages, it likely contributed to establishing a stable uterine environment for the processes from fertilization to implantation.[8]

Omega-3 is an essential component of cell membranes. It helps regulate the extracellular release of inflammatory substances and is necessary for maintaining normal bodily metabolism. Appropriate supplementation of omega-6, in turn, can prevent cellular damage and aid in repairing damaged cells. Consequently, ensuring an adequate supply of omega-3 and omega-6 is crucial for overall cellular and bodily health. Yet, with the standard diets in many industrialized nations, achieving balanced consumption of these nutrients can be challenging.[9] Accordingly, I used Eufaplex to supplement these nutrients.

Both before and during pregnancy, adequate intake of trace minerals can significantly impact the mother's health and fetal development. In addition to iron and folic acid, which are well-known essential nutrients for pregnant women, the importance

of calcium, magnesium, and vitamin D has also come to the forefront. Calcium serves as a primary mineral source for fetal bone development, and vitamin D acts as a cofactor that aids in calcium absorption. Magnesium is likewise an important mineral for fetal development; deficiency can lead to fetal growth retardation and preterm birth. In particular, these components tend to gradually decline in the body as pregnancy progresses, so proper supplementation is necessary.[10] Therefore, the patient was encouraged to take these nutrients through Calmaplex and Diverol.

Collaplex was prescribed to provide high-quality collagen. Collagen has been cited as playing a key role in successful pregnancies. Collagen proteins enhance cell adhesion, proliferation, and penetration, all of which are crucial for forming the placental villi at the maternal-fetal boundary, attaching to the uterine wall, and enabling sufficient nutrient and oxygen exchange through neovascularization. In addition, research has shown that the expression of collagen in the cervix is regulated throughout pregnancy, as the cervix hardens or softens to control the timing of delivery.[11] Collagen has also been reported to help alleviate symptoms in patients with osteoarthritis. A meta-analysis found that, compared to a control group, patients with osteoarthritis who consumed collagen experienced a significant reduction in joint pain, stiffness, and daily discomfort.[12]

In addition to the collagen component, Sulfoplex was used to help improve the patient's osteoarthritis. Sulfoplex is rich in methylsulfonylmethane (MSM), an organic sulfur compound that can improve joint function by exerting anti-inflammatory effects and removing free radicals in the body. In a randomized, blinded, controlled trial, the group that received MSM showed a significant decrease in joint pain and physical impairment compared to the control group.[13] Consequently, Sulfoplex likely supported the patient's relief from arthritis, reducing reliance on medication.

Through the above OCNT regimen, the patient successfully conceived naturally after four months and gave birth to a healthy baby without complications. Notably, she was of advanced maternal age and had previously been diagnosed with unilateral tubal blockage, suggesting a low probability of natural pregnancy. However, improving her uterine function and overall health appears to have facilitated conception. Continuing OCNT after pregnancy confirmation also played a crucial role by supplying necessary nutrients to the mother and fetus, while simultaneously reducing her reliance on steroid medications and thereby minimizing potential negative impacts on the fetus.

Because this case involves only a single patient, there are limitations in applying these findings to all patients with infertility. Nevertheless, it is worth noting that OCNT helped improve this patient's infertility and contributed to the successful birth of a healthy child. Thus, this case is reported with the patient's consent.

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