Editorial

iMedPub Journals
www.imedpub.com

Journal of Reproductive Endocrinology & Infertility
ISSN 1791-809X

2021
Vol. 6 No. 3: 19

Primary Ovarian Insufficiency

Alexander Mathew*

Jl. Gaya Motor Raya No. 15 Sunter II Kec. Sungai Bambu14330 TanjungPriok - Jakarta Utara, Indonesia

Received: April 20, 2021, **Accepted:** May 08, 2021, **Published:** May 25, 2021

***Corresponding author:**
Alexander Mathew

mathxander225@gmail.com

Jl. Gaya Motor Raya No. 15 Sunter II Kec. Sungai Bambu14330 TanjungPriok - Jakarta Utara, Indonesia.

Citation: Mathew A (2021) Primary Ovarian Insufficiency. J Rep Endo Infert. Vol.6 No.3:19.

Primary ovarian insufficiency (POI) also known as premature ovarian failure. It occurs when the ovaries stopworking before age 40. Due to POI,ovaries do notproduce normal amounts of the hormone estrogen or release eggs regularly. Many women having irregular menstrual periods as they transition to menopause and might even get pregnant because of Primary ovarian insufficiency. Infertility is the main reason of Primary ovarian insufficiency. In many women unpredictable periods and reduced fertility start before the age of 40. Some of the time it can begin early age of women.Premature menopause and Primary ovarian insufficiency are different. Periods may stop before age of 40 in premature menopause. This can be natural or it can be a disease, surgery, chemotherapy, or radiation. In Primary ovarian insufficiency, some women have infrequent periods. They may even get pregnant. The human ovary is usually the target of autoimmune attack resulting in the ovarian gland disfunction which might be manifested as premature ovarian failure (POF), polycystic ovary syndrome (PCOS), unexplained physiological state similarly as adenomyosis. In case of POF, the evidence for an autoimmune etiology is based on the presence of lymphocytic oophoritis, autoantibodies to ovarian antigens and association with other autoimmune disorders, which was clearly documented in many studies.

Classification

Primary ovarian insufficiency can be classified based on clinical findings and serum FSH levels:

• Occult primary ovarian insufficiency (diminished ovarian reserve): Unexplained infertility and a normal basal serum FSH level

• Biochemical primary ovarian insufficiency: Unexplained infertility and an elevated basal serum FSH level

• Overt primary ovarian insufficiency: Irregular menstrual cycles and an elevated basal serum FSH level

• Premature ovarian failure: Irregular or occasional periods for years, the possibility of pregnancy, and an elevated basal serum FSH level

• Premature menopause: Amenorrhea, permanent infertility, and complete depletion of primordial follicles Causes of primary ovarian insufficiency (POI)

Causes of Primary ovarian insufficiency

In most of the cases, the exact cause of POI is unknown. Research shows that primary ovarian insufficiency is expounded to issues with the follicles. Follicles are small sacs in ovaries. Your eggs grow and mature within them. One type of follicle problem is that you run out of working follicles earlier than normal. Another is that the follicles do not seem to be operating properly. In most cases, the reason for the follicle problem is unknown. However generally the cause include:

• Genetic disorders such as Fragile X syndrome and Turner syndrome

• A low number of follicles

• Autoimmune diseases, including thyroiditis and Addison disease

• Chemotherapy or radiation therapy

• Metabolic disorders

• Toxins, such as cigarette smoke, chemicals, and pesticides

Diagnosisof primary ovarian insufficiency (POI)

• Follicle-stimulating hormone (FSH) and estradiol levels

• Thyroid function tests, fasting glucose, electrolytes, and creatinine

• Sometimes genetic testing

Treatment

• Oral contraceptives

• Estrogen/progestogen therapy (combination hormone therapy or hormone replacement therapy)

• In vitro fertilization

For women who desire pregnancy, one option is in vitro fertilization of donated oocytes plus exogenous estrogen and a progestogen, which enable the endometrium to support the transferred embryo. The age of the oocyte donor is more important than the age of the recipient. This technique is successful, but even without this technique, some women with diagnosed primary ovarian insufficiency become pregnant. No treatment has been proved to increase the ovulation rate or restore fertility in women with primary ovarian insufficiency.

Other options for women who desire pregnancy include cryopreservation of ovarian tissue, oocytes, or embryos and embryo donation. These techniques may be used before or during ovarian failure, especially in cancer patients. Neonatal and adult ovaries possess a small number of oogonial stem cells that can stably proliferate for months and produce mature oocytes in vitro; these cells may be used to develop infertility treatments in the future. Ovarian tissue transplantation has been successful and,in the future, may become an option for women who are no longer fertile.

About 5 to 10% of women with primary ovarian insufficiency eventually become pregnant on their own, without fertility treatments.