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Review Article

Prevalence of Stein-Leventhal syndrome

Mohammed Abdelgafoor Abdelgadir, Mosab Nouraldein Mohammed Hamad* and Mohammed Omer Mohammed Hussein

Banoon Fertility Center, Sudan

***Corresponding Author:** Mosab Nouraldein Mohammed Hamad, Banoon Fertility Center, Sudan.

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Abstract

Stein-Leventhal syndrome regarded as the most widespread endocrine disorder in women of reproductive age, yet debate over suitable diagnostic criterion and frame limitations with sampling method.

The aim of this study was to check prevalence of this gynecologic disorder between women in different parts of the globe.

There was variation in the prevalence of this dangerous disorder among the participants, attributed to genetic diversity and their exposure to biochemical risk factors.

Extensive studies must be conducted about this real health problem to keep human resources and to meet young and strong community.

Keywords: *Stein-Leventhal Syndrome; Poly Cystic Ovarian Syndrome; Women Infertility*

Background

In 1935, Stein and Leventhal published a study on their outcomes in seven women with amenorrhea, hirsutism, fatness, and a feature polycystic look to their ovaries - one of the initial descriptions of a multifaceted phenotype today recognized as the polycystic ovary syndrome [1]. The 1990 National Institute of Child Health and Human Development Conference of Stein-Leventhal syndrome initially recommended that the main criterion for it should comprise (in order of significance): hyperandrogenism and/or hyperandrogenemia, oligo-ovulation and the exclusion of other identified disorders, make PCOS a hyperandrogenic disorder of exclusion with an ovarian etiology and/or consequences. In 2003, the Rotterdam agreement extended the diagnostic criterion to comprise at least two of the subsequent three characters: clinical and/ or biochemical hyperandrogenism, oligoanovulation, and PCO, excluding other endocrinopathies. These newer Rotterdam criterion for it contains all women defined by 1990 NIH criterion but also women with either clinical and/or biochemical hyperandrogenism and PCO (namely, ovulatory PCOS) or PCO with ovulatory dysfunction (but without signs of androgen overload). In 2006, the Androgen overload-PCOS Society suggested that PCOS be distinct by clinical and/or biochemical hyperandrogenism, with either oligoanovulation and/or PCO, without associated disorders [2].

It is not just a very common reason of anovulatory infertility, menstrual turbulence and hirsutism, but it is also a main risk factor for the progress of type 2 diabetes mellitus in later on life [3].

Stein-Leventhal syndrome is recognized as the connection of hyperandrogenism with chronic an ovulation in women with no specific underlying sicknesses of the adrenal or pituitary glands [4].

Epidemiology

PCOS is considered to be one of the most widespread endocrine disorders amongst women of reproductive age. It is identified to be one of the major reasons of infertility. The global prevalence is estimated to be 6-7%; however, the country-specific occurrence estimates differ extensively.

Prevalence

Study by Maha Al khaduri., *et al*. in Oman showed that; A sum of 255 indviduals with PCOS were recruited amongst 3644 females who attended the gynecology clinic. The hospital based occurrence of PCOS between all the Omani women referred to this clinic was 7% [5].

Study done by Nidhi R., *et al*. showed that; occurrence of PCOS in Indian Adolescents was 9.13% [6]. According to the NIH diagnostic criterion, there is a similar frequency of PCOS between 6% and 9% reported across the United States, the United Kingdom, Spain, Greece, Australia, Asia, and Mexico [7].

Study done by Rong Li., *et al*. (2013) showed that; the occurrence of PCOS in the Chinese group of people was 5.6% [8].

Study done by Melissa D. Kahsar-Miller showed that; The percentages of PCOS in mothers and sisters of persons with PCOS were 24% and 32%, correspondingly, while the risk was higher when bearing in mind unprocessed premenopausal women only [9].

Study done by Tehrani., *et al*. showed that; the occurrence of PCOS between Iranian women was 7.1% [10]. Study done by Carlos Moran., *et al*. showed that; frequency of PCOS amongst Mexican women was 6.0% [11].

Study done by Jacqueline A Boyle., *et al*. showed that; commonness of PCOS between Australian women in Darwin was 15.3% [12]. Study done by Eun Kyung Byun., *et al*. showed that; the frequency of PCOS was 4.9% in university students from Seoul [13].

Study done by Ekwutosi M., *et al*. showed that; occurrence of polycystic ovary syndrome between the confidentially insured, United States, 2003-2008, was 1585.1 per 100, 000 (1.585%) [14].

Study done by Esther AM., *et al*. showed that; No significant variations in PCOS frequency were found among women from same-sex twin pairs (either monozygotic or dizygotic), differing-sex twin pairs, sisters, and spouses [15].

Study done by A Peserico., *et al*. showed that; the frequency of polycystic ovaries in females with acne was 45.37% [16].

Study done by E Cela., *et al*. showed that; Women with alopecia had an elevated frequency of PCO and than the control people PCO: 67% [17].

Study done by E Kousta., *et al*. showed that; polycystic ovaries (PCO) are extremely common in women presenting with hirsutism or recurring miscarriage but the functional importance of PCO in ovulatory women presenting with infertility remains indistinct. Amongst 289 couples grouped in four major diagnostic classes, PCO were found in 81 (83%) of 98 anovulatory patients, 40 (53%) of 76 persons whose partners had sperm dysfunction, 26 (50%) of 52 persons with tubal disease and in 28 (44%) of 63 persons with mysterious infertility [18].

Study done by Ahmad Sameer Sanad showed that; the occurrence of polycystic ovary syndrome in fertile and infertile women in Minia Governorate, Egypt was 27.4% [19].

Conclusion

The above mentioned studies showed that; the prevalence of Stein-Leventhal syndrome (polycystic ovarian syndrome) differs from one geographical area to another. PCOS may be attributed to genetic and biochemical reasons or to both of them. The etiology of this gynecologic disorder is not fully understood up to date, and then many studies are required to clear the foggy appearance of it to the scientific community.

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