



Preliminary Survey of Acne Patients In Relation To Pcos And Non Pcos Females In Vidarbha Region, M.S. India

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Abstract

Polycystic ovary syndrome (PCOS) is one of the most common endocrine disorders affecting 7-10% females of reproductive age group. This syndrome is characterized by chronic anovulation, clinical and/or biochemical hyperandrogenism, and polycystic ovary, commonly leading to infertility. In the present study we investigated the percentage of PCOS and Non PCOS females suffering with acne. Data was collected randomly from various Gynecological, Dermatological hospitals, Beauty parlours of Vidarbha region. Total 198 females were surveyed for the present study. Total 28.78% females had acne out of them 15.78% were PCOS with acne and 84.21% was PCOS without acne. For PCOS 12.62% females were identified, in them 36% of PCOS females with acne and 64% females without acne.

Key words: PCOS, acne, females, Vidarbha region.

INTRODUCTION

Polycystic ovary syndrome (PCOS) is a condition that causes irregular menstrual periods because monthly ovulation is not occurring and levels of androgens (male hormones) in female are elevated. Menstrual irregularities ranges from symptoms of amenorrhea (cessation of menses), to oligomenorrhea (infrequent menses), to menorrhagia (excessive duration or amount of bleeding (Franks, 1992; Hull, 1987). The elevated androgen levels can sometimes cause excessive facial hair growth, acne, and/or male-pattern scalp hair thinning. Signs and symptoms of PCOS usually begin around the time of puberty, although some female do not develop symptoms until late adolescence or even into early adulthood. Because hormonal changes vary from one woman to another, patients with PCOS may have mild to severe acne, facial hair growth, or scalp hair loss (www.google.com). As androgens are necessary for the development of the cutaneous features found in PCOS, it would be expected that female with severe forms of clinical hyperandrogenism would have a more elevated plasma androgen level. Several studies have

reported a correlation between hirsutism and/or acne severity and circulating androgen levels, with inconsistent result (Ozdemir *et al.*, 2010; Borgia *et al.*, 2004 and Cibula *et al.*, 2000). PCOS is often associated with obesity and insulin resistance (Dinka, *et al.*, 2012).

Material and Methods

Study population

A total 198 females were identified randomly visited to different Gynaecological, dermatological Hospitals, beauty parlours and inhabiting in civil areas of Amravati region. We included diagnosed female's for PCOS in Gynaecological hospitals and for acne in Dermatological Hospitals. The study group diagnosed with PCOS according to the Rotterdam ESHRE/ASRM consensus (Rotterdam, 2003). Female's were assessed by history and physical examination (name, age, address, occupation), a detailed examination was conducted and noted the sites, density, of pimples on face and other part of the body.

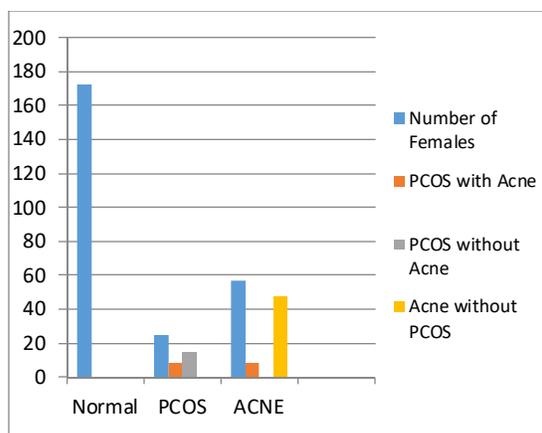
In present study we also included different parameters like age, pelvis sonography. Informed consent was sought from them and data entered into pre-structured standard pro forma.

Results and Observation:

Table and fig.-1: Showed the percentage of PCOS in association with and without acne and acne with and without PCOS female's.

Total patients observed		198
PCOS Patients	Total PCOS	25(12.62%)
	PCOS with acne	9(36%)
	PCOS without acne	16(64%)
Acne patients	Total Acne patients	57 (28.78%)
	Acne with PCOS	9 (15.78%)
	Acne without PCOS	48(84.21%)
Normal without PCOD		173(87.37%)

Total females investigated (n=198), PCOS (n=25) and Acne (n=57)



Discussion

We used revised 2003 Rotterdam consensus as diagnostic criteria of PCOS, in which diagnosis of PCOS was based on clinical characteristics in combination with ultrasonography. In the present study we were reported the percentage of acne in PCOS and non PCOS females. Carmina *et al.*, (2006) also observed higher percentage of PCOS female who had acne, hirsutism, alopecia and obesity. Similar observation was also identified as out of total 198 females 12.62% are suffering from PCOS problem. Out of total PCOS females 36% are PCOS with acne and 64% are PCOS without acne. In this study 28.78% females are with acne problem. We noted that out of total acne patients 15.78% females are acne with PCOS and 84.21% females are acne without PCOS. As a syndrome, PCOS has multiple characteristics derived from common mechanisms (Diamanti-Kandarakis, 2008). Hirsutism is the most common clinical manifestation of hyperandrogenism, and can be experienced by adolescent and adult female with PCOS, affecting 50-76% of female with the diagnosis. Adult acne and severe adolescent acne is also evidence of hyperandrogenism and affect 10-34% of PCOS patients (Lee and Zane, 2007). The cutaneous features of acne and hirsutism are important for early diagnosis of PCOS. Androgens are an indispensable factor in the pathogenesis of acne due to the potentiating capabilities, which increases sebum production and give rise to follicular retention hyperkeratosis (Rosenfield, 1986).

Conclusion

PCOS is one of the important factors causing infertility. In the present study, we investigated the association of PCOS with acne in females of surveyed region. The most prominent hyperandrogenic clinical sign in PCOS female's are hirsutism and acne. Present study data supported the sign and symptoms of acne

correlates with PCOS patients. This study showed preliminary finding in respect to hormonal imbalance that may cause PCOS like disorder. Hormonal imbalance is one of the sign and symptom of acne. So we finally conclude that the association of PCOS with acne.

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