ULTRASONOGRAPHICALLY DIAGNOSED POLYCYSTIC OVARIAN DISEASE IN ASYMPTOMATIC 1ST YEAR FEMALE MEDICAL STUDENTS.

Anatomy

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ABSTRACT

INTRODUCTION: Polycystic ovarian syndrome is common endocrine disorder in women of reproductive age across the world. The term Polycystic Ovarian Disease (PCOD) was first described by Irving Stein and Michael Leventhal as a Triad of 'Amenorrhoea', 'Obesity' and 'Hirsutism' in 1935 when they observed the relation between obesity and reproductive disorders. It is hence also known as the 'Stein-Leventhal Syndrome' or 'Hyperandrogenic Anovulation' (HA) and is the most common endocrine ovarian disorder affecting approximately 2-8% women of reproductive age worldwide.

METHOD: the research was conducted in SKIMS Medical College and hospital. Purposive sampling technique was used where 30 students studying in first year of M.B.B.S course were selected and were explained about the study and related purpose and their informed consents were obtained. Students with clinical features like menstrual disturbances, hirsutism, and acne were excluded. Each student underwent ultrasound scanning procedure by radiologist in the Department of Radiology, SKIMS Medical College and Hospital.

RESULT: in the present study, 30 female medical students with an age group of 18-20, underwent ultrasonographic assessment by one ultrasonographer in the department of radiology in SKIMS medical college and hospital. On pre-ultrasound assessment, none of the students reported previous signs and symptoms of PCOD. Yet, features of PCOD in the ovaries were discovered in 3 students (10%).

CONCLUSION: the aim of our study was to access the level of awareness among female students about the disorder and also to highlight the importance of early diagnosis and treatment of PCOD, in order to prevent further complication.

KEYWORDS

Polycystic ovarian syndrome, Anovulation, Hirsutism.

INTRODUCTION: Polycystic ovarian syndrome is common endocrine disorder in women of reproductive age across the world[1]. The term Polycystic Ovarian Disease (PCOD) was first described by Irving Stein and Michael Leventhal as a Triad of 'Amenorrhoea', 'Obesity' and 'Hirsutism' in 1935 when they observed the relation between obesity and reproductive disorders. It is hence also known as the 'Stein-Leventhal Syndrome' or 'Hyperandrogenic Anovulation' (HA) and is the most common endocrine ovarian disorder affecting approximately 2-8% women of reproductive age worldwide[2]. It is mostly characterized by chronic anovulation, polycystic ovaries, hyperandrogenism, abdominal obesity, hypertension, dyslipidimia, as frequent metabolic traits[3]. The effect of modernization and technological ascertainment reflects in our daily life and changed our lifestyle a lot. Food intake is focused progressively on sugar, fast food, and soft drinks. This unhealthy eating habits and lack of exercise leads to PCOS as well.[4] Clinical features of polycystic ovary syndrome are oligomenorrhea/amenorrhea, Infertility, first trimester miscarriage, Obesity, Hirsutism, Acne, Acanthosis nigricans, Male pattern alopecia[5]. It is a heterogeneous condition, whose diagnosis is made on ultrasound and combinations of signs and symptoms and management is dependent on symptoms[6]. The definition accepted by most of the authors is the following: presence of ≥ 10 cysts measuring 2–8 mm in diameter arranged peripherally around a dense core of stroma or scattered through an increased amount of stroma. It includes the two main histological features of PCOD, namely the excessive number of follicles, also termed multifollicularity, and stromal hypertrophy[7].

Using ultrasound scanning techniques, the diagnosis of PCOD is generally made when the ovaries appear enlarged with increased ovarian stroma and volume with thickened capsule and contain more than 10 cysts, each 10 mm or more in dia. Scattered around or through echodence thickened stroma[8].

AIM: The aim of this study was to early detection of PCOD by ultrasonography among the asymptomatic students, so as to prevent further complication.

METHOD: the research was conducted in SKIMS Medical College and hospital. Purposive sampling technique was used where 30 students studying in first year of M.B.B.S course were selected and were explained about the study and related purpose and their informed consents were obtained. History was taken from the students regarding their menstrual pattern and features of PCOS. Students with clinical features like menstrual disturbances, hirsutism, and acne were excluded. Each student underwent ultrasound scanning procedure by radiologist in the Department of Radiology, SKIMS Medical College and Hospital.

RESULT: in the present study, 30 female medical students with an age group of 18-20, underwent ultrasonographic assessment by one ultrasonographer in the department of radiology in SKIMS medical college and hospital. On pre-ultrasound assessment, none of the students reported previous signs and symptoms of PCOD. Yet, features of PCOD in the ovaries were discovered in 3 students (10%).

FIG 1. Ultrasonographic image showing features of PCOD.

DISCUSSION: Polycystic Ovarian syndrome is a common condition affecting 20% of the reproductive women[9]. The percentage is increasing day by day. At present even teenage girls are getting diagnosed with PCOS. This is an alarming situation as this condition has the signs and symptoms which are considered as normal hormonal imbalance. Our study was done on 30 female first year medical student, most of them were unaware about the signs and symptoms of the

PCOD, before our educational intervention, so after sonographic assessment 3 students(10%) out of 30 shows features of PCOD in the ovaries. Similarly, a study was done among engineering students, which also stated the inadequate knowledge in pre-test (Nimo Biam)[10]. Similarly study was done to estimate effect of educational sessions about Polycystic Ovarian Syndrome in late adolescent girls showed same results (Hanan E M et al)[11]. Another study showed similar results that after educational program majority of students had good knowledge (Mohamed H A) [12]. It was found in study that many of participants were suspected with PCOS as they had signs and symptoms. It indicates that many females don't consult gynecologists for their health status. It was found in another study that except in life threatening situations, the families do not take the woman to a healthcare institute, because taking woman out of their houses had thought to be disrespectful (Rizvi Khan and Shaikh)[13]. Only 22% reported that the problem should be discussed with the family members, whereas remaining subjects stated that incase of any problem a doctor should be consulted(Ali et al)[14].

CONCLUSION: PCOD is a very common disorder among women in recent advanced life and the prevalence of this disease is increasing day by day. Unfortunately many women especially adolescent girls are not aware about the signs and symptoms of this disorder. This unawareness may be due to social stigma, where the young girls don't want to discuss their gynecological problem. So, the aim of our study was to access the level of awareness among female students about the disorder and also to highlight the importance of early diagnosis and treatment of PCOD, in order to prevent further complication like infertility, dyslipidemia, torsion of cyst, hypertension etc.

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