ORIGINAL ARTICLE

To Evaluate The Cutaneous Manifestations Of Polycystic Ovarian Disease At Tertiary Care Hospital.

Mehnaz Akram Shaikh[1], Shabana Halepoto[2], Aasma Naaz[3], Shazia Jamali[4]

1.DR Mehnaz Akram Shaikh
MBBS, MS GYN
Registrar PMCH Nawabshah
Email mehnazdr04@gmail.com
Cell no 03334167950

2.DR Shabana Halepoto
MBBS, FCPS GYN
Senior Registrar
Deptt of Gyn/Obs
PUMHS Nawabshah.
Email.
Shabana.khalid44@yahoo.com
03322961922

3.DR Aasma Naaz
Assistant Professor
Deptt of Gyn/Obs
PUMHS Nawabshah
Email draasma@yahoo.com
Cell no. 03332754049

4.Dr Shazia Jamali
MBBS, FCPS
Consultant Gynecologist
Jinnah Medical Centre Nawabshah

Corresponding author
DR MEHNAZ AKRAM SHAIKH
MBBS, MS GYN
Registrar PMCH Nawabshah
Email mehnazdr04@gmail.com
Cell no 03334167950

ABSTRACT:-

BACKGROUND: Polycystic ovarian disease is the common disease affecting the women and causing infertility in mostly young female of reproductive age. This can also present with cutaneous manifestations. This all occurs due to hypergonadism presenting as hirsutism, acne, seborrhea, alopecia, menstrual irregularity, obesity and ovarian cysts. Diagnosis is commonly done clinical examination for cutaneous picture of the disease. For diagnosing ovarian cysta, radiological investigations are necessary.

OBJECTIVE: To assess the cutaneous manifestations of patients suffering from ovarian cysts and treat them accordingly.

METHODOLGY: This study was done in Department of Gyn/Obs Unit at PMCH Nawabshah. The type of study is a cross sectional one conducted from January 2017 to January 2019. Total 80 patients were included for the study. The source of patients for study was Gynaecolgy OPD and Emergency department of PMCH Nawabshah.

All patients either married or unmarried were selected for the study. A detailed history and thorough clinical examinaton was done. All routine biochemical investigations were done. Radiological investigations such as Ultrasound and CT Scan wherever necessary were done to diagnose the Ovarian Cysts. Dermatological examination was done by Dermatologist.

RESULTS: PCOS is commonly associated with cutaneous complications. 60 (75%) patients showed Hirsutism. 10 (12.5%) patients were noted to have Acne Vulgaris. Female pattern Hair loss (FPHL) was found to be among 6 (7.5%) patients. 21(26.25%) patients had Acanthosis Ingrains. Only 4 (5%) patients showed Seborrhea.

CONCLUSION: Hirsutism is the common cutaneous presentation of patients suffering from PCOD.

KEYWPRDS: Hirsutism, Cutaneous, Ultrasound, Hypergonadism.

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INTRODUCTION:

Polycystic ovarian condition is one of the most widely recognized endocrine variations from the norm found in ladies of regenerative age. It is likewise observed as normal etiology of noteworthy social shame and passionate trouble. However, the specific pathogenesis of this illness is obscure yet it is viewed as a complex multigenic issue including the anomalies of the hypothalamic pituitary hub, steroidogenesis and insulin obstruction. 1, 2. It is often characterized by hypergonadism depicting as hirsutism, acne, seborrhea, alopecia, menstrual irregularity, obesity and ovarian cysts. The most important findings to diagnose the disease are hyperandrogenism, chronic anovulation, and polycystic ovaries on ultrasound.[3] PCOS involves the women of reproductive age with no difference of race but differ in signs and symptoms of different ethnic groups. The prevalence is also different ranging from 4-10% dependant on diagnostic

criteria. [4] Many authors are of opinion that PCOS is primarily caused by abnormal steroid genesis. There is increased concentration of testosterone and DHE of 60-80% and 20-25% respectively. Estradiol production is also found to be increased associated with androgen levels.[5] The clinical dermatological indications of hyperandrogenism are hirsutism, skin inflammation, seborrhea, alopecia and in serious cases indications of virilization. Hirsutism is characterized as improved development of terminal hair in androgen dependant territories in females.6 It happens in 50-80% of patients. The ferriman-Gallwey scale is utilized to analyze hirsutism. Its determination is affirmed when the score is > 8. It is important to separate hirsutism from hypertrichosis in ladies. The Former is an expansion of terminal hair in androgen dependant zones and last is development of hair over all body. 7 Skin break out is a pilo-sebaceous unit variation from the norm present on face, neck, back and pectoral district. Androgens are significant in such manner. In skin break out vulgaris, the androgens are typical on the grounds that in skin break out patients nearby change is improved by expanded receptor affectability to androgens in skin inflammation patients.8 Androgens not just upgrade the sebaceous organs and sebum creation however it additionally causes anomalous desquamation of follicular epithelial cells. These variables cause arrangement of comedones and in blend with colonization of the follicle by propionibacterium acnes bringing about irritation and dynamic improvement of papules, pustules, knobs, blisters and stars. 9. Androgenic alopecia is manifested by loss of hair in the center of scalp with psychological effects. Its diagnosis is to be ruled out from other conditions like telogen effluvium, alopecia areata, anagen loss syndrome and trichotillomania. [10]

Acanthosis nigricans has symptoms of brown and velvety hyperpigmentation of the skin with accentuation on skin folds. This is commonly seen in neck, armpits, groins and infra mamary region. Its incidence is among 5% of cases of PCOD. [11]

The rationale of our study is to evaluate the dermatological manifestations of PCOD so that these diseases may be early differentiated from skin disease and abruptly treated.

Patients and Methods

This study was done in Department of Gyn/Obs Unit 1 at PMCH Nawabshah. The type of study is a cross sectional one conducted from January 2017 to January 2019. Total 80 patients were included for the study. The source of patients for study was Gynaecolgy OPD and Emergency department of PMCH Nawabshah.

All patients either married or unmarried were selected for the study. A detailed history and thorough clinical examinaton was done. All routine blood investigations were done. Radiological investigations such as Ultrasound and CT Scan was done to diagnose the Ovarian Cysts. Dermatological examination was done by Dermatologist.

RESULTS

Total 80 patients were included in this study. Out of them, 30 (37.5%) were unmarried and 50 (62.5%) married which is depicted in Pie Chart below.

Age difference was also noted in these patients. The most common presentation of patients was in young age and the remaining patients ranged from middle age to old age. 52 (65%) patients suffered were between ages of 21-35 years. 28 (35%) patients aged from 36-45 years

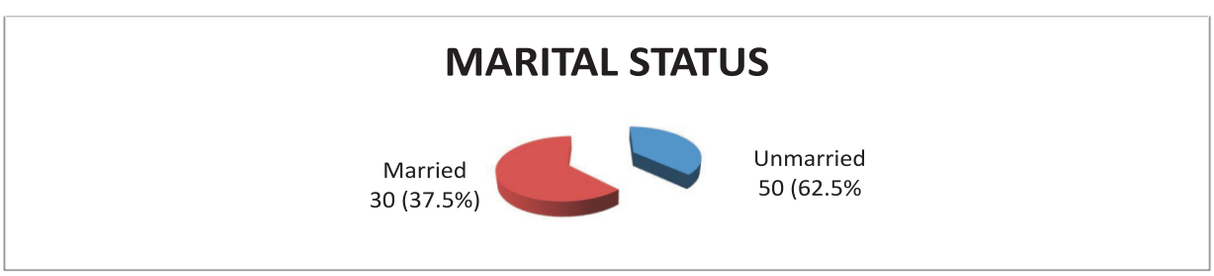

Table 1 AGE DISTRIBUTION

S.NO:	AGE OF PATIENTS	NO OF PATIENTS	PERCENTAGE
1	21-35 Years	52	65%
2	31-45 years	28	35%
TOTAL	n= 21-45 years	80	100%

PCOS is commonly associated with cutaneous complications. 60 (75%) patients showed Hirsutism. 10 (12.5%) patients were noted to have Acne Vulgaris. Female pattern Hair loss (FPHL) was found to be among 6 (7.5%) patients. 21(26.25%) patients had Acanthosis Ingrains. Only 4 (5%) patients showedSeborrhea.

Table 2 CUTANEOUS COMPLICATIONS OF PCOS

S.NO:	CUTANEOUS COMPL	NO OF PATIENTS	PERCENTAGE
1	Hirsutism	60	75%
2	Acne Vulgaris	10	12.5%
3	FPHL	6	7.5%
4	Acanthosis Ingrains	21	26.25%
5	Seborrhoea	4	5%

The estrogen-progesterone combination therapy was given to patients for cutaneous manifestations treatment in consultation with Dermatologist. With the support of skin specialist the cutaneous manifestations were treated and got rid of them. Oral contraceptives were also given to these patients.

Discussion:

Polycystic ovarian syndrome is the common endocrinopathy affecting the women of reproductive age. It may cause metabolic as well as psychosocial problems. It is better to diagnose it early so that complications may be prevented to occur. It is significant to be attentive regarding its varied clinical features. It is becoming as emerging problem which can only be dealt with careful assessment, timely intervention and appropriate treatment. Life style changes have played enormous role in enhancing its incidence throughout the world.[12]

In a study, 70 patients with PCOS were included and their age group most commonly present was between 21-25 years whereas in our study the most common age of patients was between 21-35 years. It indicates that the PCOD is commonly found in reproductive age group. The study by Shareef et al shows that 66.6% patients were unmarried. In another study, this ratio is 51.42%. But in our study, the population of study of unmarried was 62.5% and married patients ratio was 37.5%. [13] Cutaneous manifestations appear to be mirror in detecting the underlying process of this disease and could be the first expression of the disease. Acne, hirsutism, androgenetic alopecia, acanthosis nigricans and seborrhea are the commonly associated cutaneous manifestations of PCOS.[14] Cutaneous manifestations are noted in 60% of the patients with polycystic ovarian disease. In a study, Acne Vulgaris was found in 57.1% patients and was severe. Similar ratio was also noted by Jain et al. In our study, only 12.5% patients were found to have Acne Vulgaris. Studies done by Jayaram et al and Singh at el, hirsutism was found to be in different proportions viz 50- 76%. In our study, hirsutism was seen in 75% of patients.[15]

The etiology of PCOS is idiopathic. The factors like excess insulin, low grade inflammation and hereditary play key role in initiating its process. It is associated with multiple metabolic disorders. Patients may present with obesity, type 2 diabetes mellitus, hypertension, chronic liver disease, obstructive sleep apnea and insulin resistance. Psychological manifestations also sometimes appear in these patients like depression and mood disorders. [16]

Acanthosis ingrains occur due to hyperinsulinemia or keratinocytes. The studies commonly showed the involvement of neck. One study showed its incidence to be 35.3% but another study showed it up to 47.1%. In a study, 21.4% patients had Seborhhoea but in another study, the ratio was 41.9%. But in our study, it was only 5%. [17]

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