



RESEARCH ARTICLE

Oral Contraceptive In Women With Polycystic Ovary Syndrome : Influence on Behavioural Changes

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PCOS = polycystic ovary syndrome
OC = oral contraceptive pills
HRQOL= health-related quality of life

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Abstract

Women with polycystic ovary syndrome (PCOS) have gynecologic, psychological , reproductive and metabolic co-morbidities that affects their entire lifespan. They have higher risk of depression. Limited data are available regarding effects of an oral contraceptive pills (OC) treatment on health-related quality of life (HRQOL).

AIM

We aimed to determine the impact of an (OC) treatment on health-related quality of life (HRQOL), depressive and anxiety symptoms in polycystic ovary syndrome (PCOS).

METHOD

Prospective observational study.

Study included 84 patients with PCOS without a previous psychiatric diagnosis. Category I included Oral contraceptive users and Category II included Non Contraceptive users. All participants evaluated after 6 months of treatment with EE/DRSP (3 mg/30 µg).

RESULTS

After treatment, regular menstrual cycles were attained and hirsutism was significantly improved in all patients ($P < 0.05$ for both). Percentage of women with behavioural score improvement after treatment with OC pills (CAT-1) was higher than non users of OC pills.

CONCLUSION

OC therapy in PCOS improves hirsutism and menstrual disturbances, along with HRQOL. This improvement is not associated with any change in the prevalence of depressive and anxiety symptoms.

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INTRODUCTION

Polycystic ovary syndrome (PCOS, STEIN LEVENTHAL SYNDROME) is associated with amenorrhea, hyperandrogenism and ovarian changes diagnosed by rottenberg criteria. It is associated with many psychological and metabolic disturbances. Women with polycystic ovary syndrome have gynecologic, reproductive, metabolic and lifetime long term co-morbidities that affect their entire lifespan.

Recently a higher risk of mood and anxiety disorders has been reported in women with PCOS. Women with PCOS have higher depression scores and a higher risk of depression independent of BMI.

PCOS women presents with —

- Anovulation / Amenorrhoea / Oligomenorrhoea
- Signs of hyperandrogenism
- Hirsutism, Acne
- Obesity
- Subfertility / infertility

These symptoms lead to a significant reduction in quality of life. For example, hirsutism has been shown to cause marked psychological stress and infertility issues can cause tensions within the family, altered self- perception, reduced self confidence and problems at work.

- Health- Related Quality of Life (HRQoL) is a multi- dimensional, dynamic concept that encompasses physical, psychological and social aspects that are associated with a particular disease or its treatment.
- Effective treatment of PCOS can reduce the burden of these symptoms as well as the associated psychological distress and thus improve health-related quality of life (HRQoL).

AIM

The aim of this study was to determine the impact of an oral contraceptive (OC) treatment on health-related quality of life (HRQOL) , behavioural changes in polycystic ovary syndrome (PCOS).

MATERIAL AND METHOD

- This was a Prospective observational study.

Subjects recruited in the Department of Obstetrics & Gynecology, NIMS Medical College, NIMS University, Jaipur from January 2015 to June 2015 .

Total number of subjects: 84

Inclusion criteria : PCOS without a previous psychiatric diagnosis .

Subdivision of included patients :

- Category-I: Oral contraceptive pill users in PCOS Patients.
- Category-II: Non Contraceptive users in PCOS Patients .

- All participants completed PCOS Questionnaires , Hospital Anxiety and Depression Scale and General Health Questionnaire . Serum androgens, fasting insulin, fasting and postload glucose values during an oral glucose tolerance test were measured.

- Changes in these variables and the scores of questionnaires were evaluated after 6 months of treatment with OC pill (Ethinyl estradiol / Drospironone)(3 mg/30 µg).

RESULTS**TABLE 1 DEMOGRAPHIC DATA OF SUBJECTS INCLUDED IN STUDY**

	CATEGORY I	CATEGORY II
AGE	25 ±3.2	25 ±3.6
OCCUPATION - EMPLOYED -UNEMPLOYED	11 38	15 20
LITRACY - ILLITRATE - LITRATE	10 38	06 30
HABITAT - RURAL -SUB URBAN	06 42	08 28
ECONOMIC STATUS- UPPER - MIDDLE	14 34	10 26
MARRIATAL STATUS – MARRIED - SINGLE	36 12	26 10
DURATION OF PCOS SYMPTOMS LESS THAN 1 YEAR 1- 5 YEARS MORE THAN 5 YEARS	10 24 14	08 16 12

FIG. 1 CLINICAL FEATURES OF THE PATIENT SAMPLE

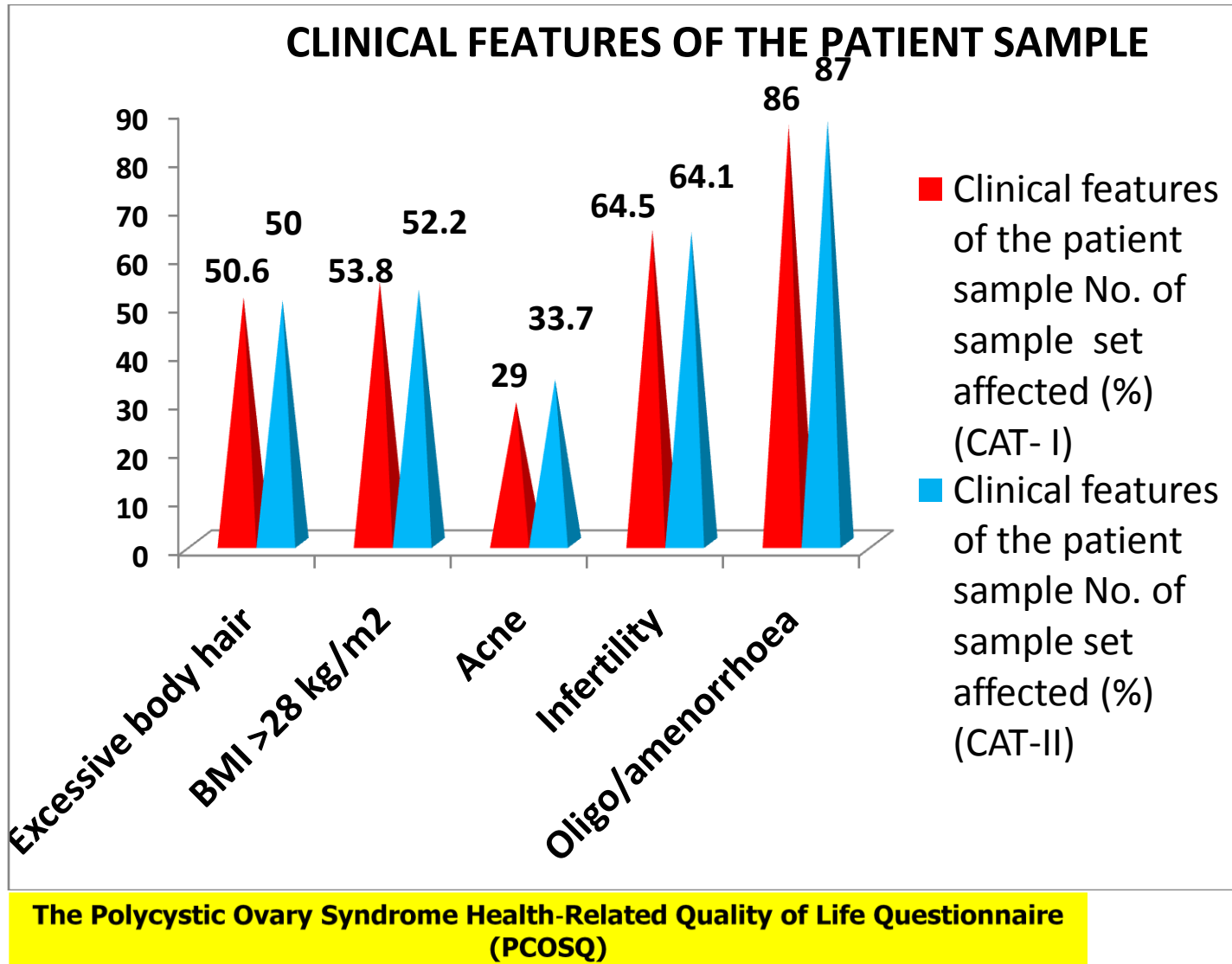


FIG 2 BIOCHEMICAL FEATURES OF THE PATIENT SAMPLE

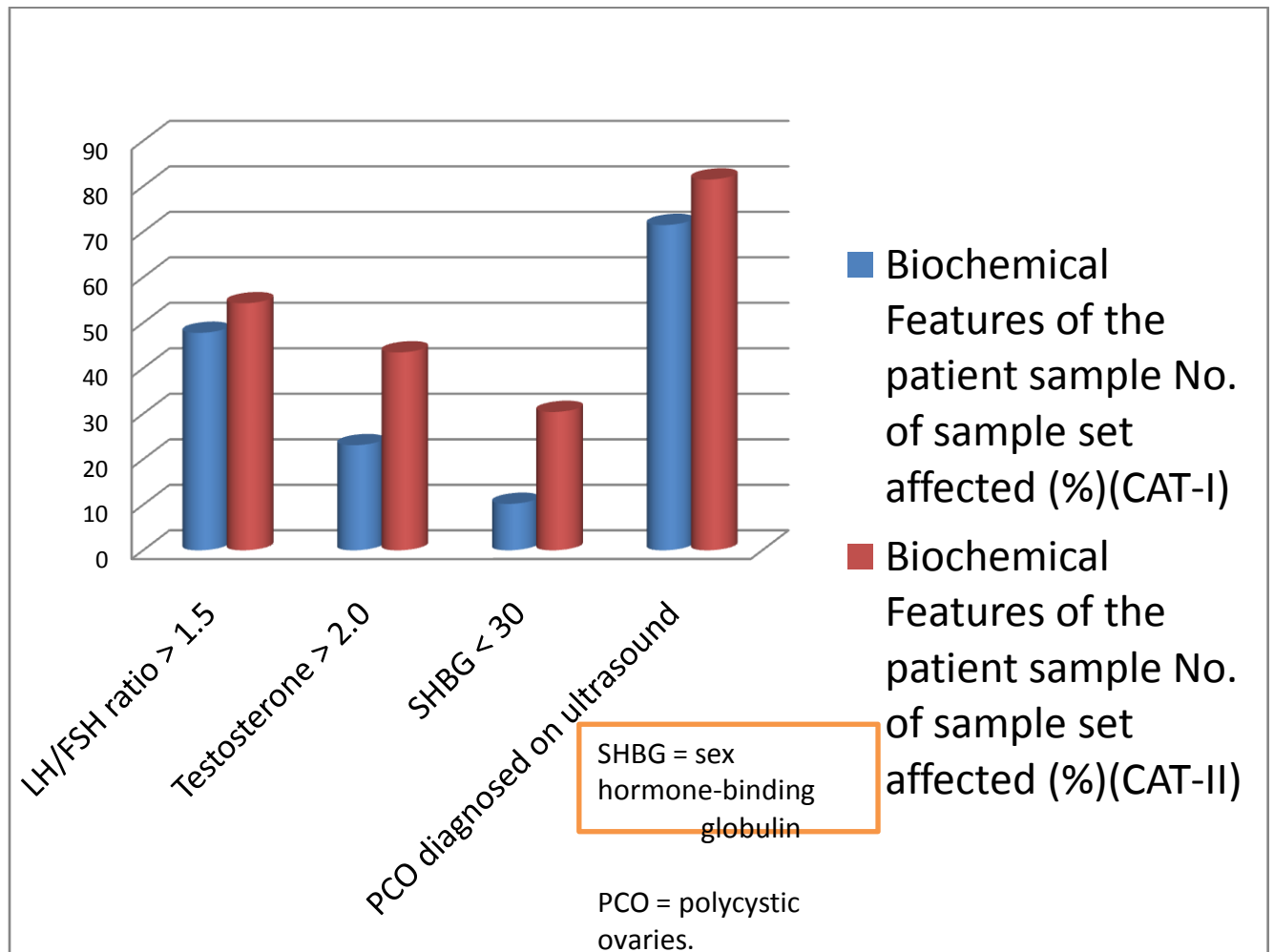
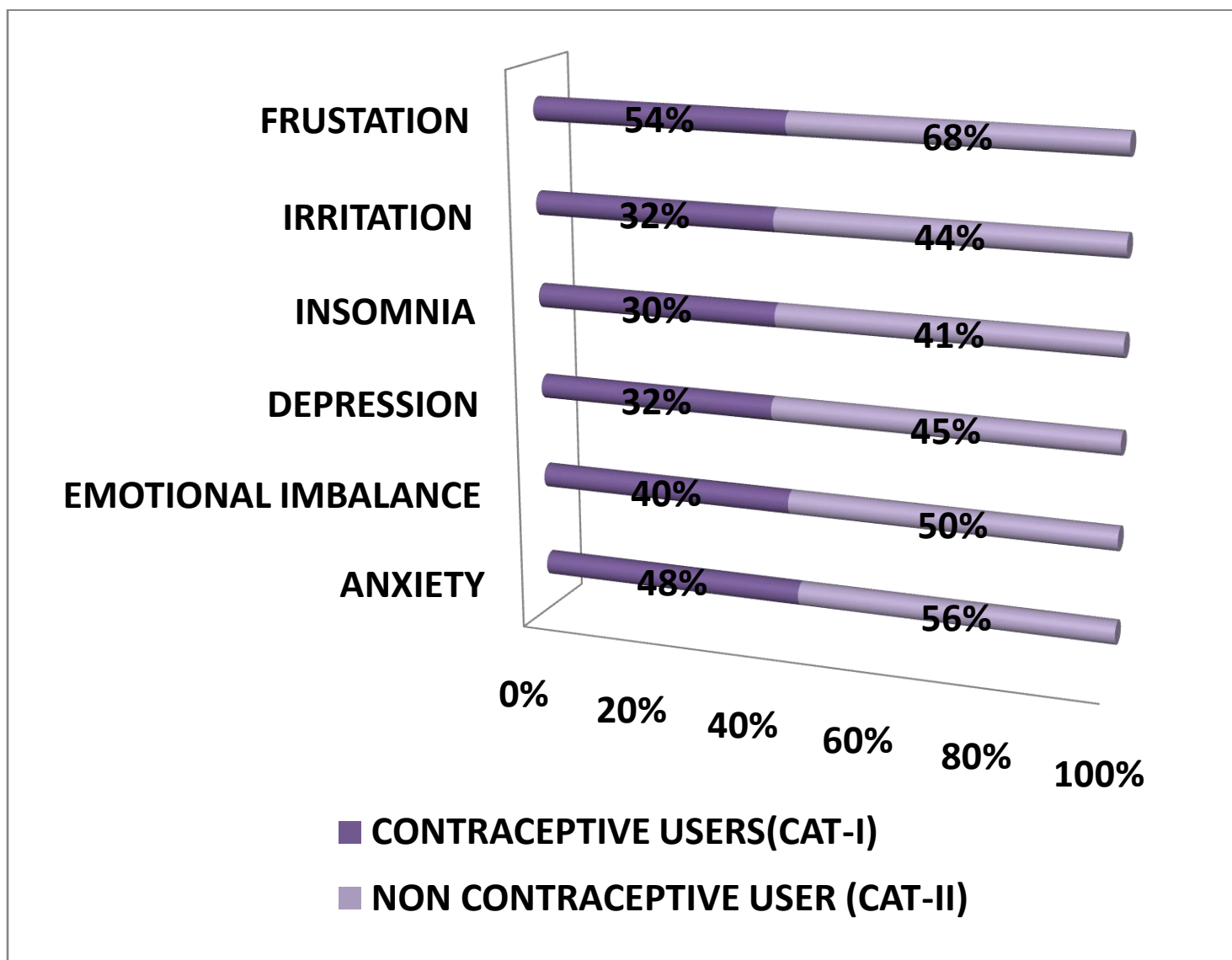


FIG 3 EFFECT OF ORAL CONTRACEPTIVES IN PCOS WOMEN (ON BEHAVIOURAL SYMPTOMS)



- After treatment , regular menstrual cycles were attained and hirsutism was significantly improved in all patients. Hirsutism and emotional domains of the PCOS Questionnaires improved. Depression and anxiety was also improved. However, Overall depression, anxiety mean scores and depression rates did not show a significant change.

DISCUSSION

From above study it is clearly evident that OC pills play an important role in PCOS. Treatment with OC pills is beneficial in controlling menstrual irregularity , hirsutism and acne in PCOD. ($P < 0.05$ for both)

Emotional domains of the PCOSQ improved at 6 months . Depression was improved in depressive patients. Behavioural improvement was found in PCOS patients who used OC pills (CAT-I). However, Overall depression, anxiety mean scores and depression rates did not show a significant change. However our study is in consistent with the findings of Cinar N et al, 2012 .

CONCLUSION

- Behavioural improvement was found in PCOS patients who used OC pills (CAT-I). Percentage of women with behavioural score improvement after treatment with OC pills is higher than non users of OC pills. However, Overall depression, anxiety mean scores and depression rates did not show a significant change.
- The main complaints of the patients of PCOS are hirsutism and irregular menses. Accordingly, menstrual and hirsutism problems are the most serious concerns followed by psychological and emotional problems based on the PCOS Questionnaires.

SUMMARY

- OC therapy in PCOS improves hirsutism and menstrual disturbances, along with HRQOL. This improvement is not associated with any change in the prevalence of depressive and anxiety symptoms.

WHAT IS KNOWN AND WHAT THIS ARTICLE ADDS

- Limited data are available regarding the effects of an OC on HRQOL, and depressive and anxiety symptoms in PCOS. This study reports the effects of the OC Pills (ethinyl estradiol/drospirenone (EE/DRSP)) on HRQOL questionnaire for women with PCOS (PCOSQ), depressive and anxiety symptoms after 6 months of treatment.

LIMITATION

- The study is subject to the strengths and limitations of observational study design. A limitation of our study is the small sample size and lack of data related to possible confounding factors.

REFERENCE

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