

To Compare the Effectiveness of Prescribed Low Carbohydrate Diet versus Balanced Diet in the Management of Polycystic Ovarian Syndrome



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INTRODUCTION : Polycystic ovarian syndrome is a group of conditions with – menstrual irregularities, anovulatory cycles, hyperandrogenism and polycystic ovarian morphology. The possible factors include – Genetic factor and epigenetic factors

Polycystic ovary syndrome (pcos) mainly affects women of reproductive age. It affects 8% to 13% of women of reproductive age. The prevalence of pcos in india is 3.7 to 22.5%. Most influential factor in insulin levels is dietary carbohydrates specially processed carbs. The dietary carbohydrates is most important and easily modifiable factor in patients with pcos.

NEED OF THE STUDY – LIFE WITH PCOS-INCREASES

1. Pregnancy related complications-infertility, miscarriage, gestational diabetes (14-22%), pregnancy induced hypertension (12.7%), preeclampsia (8%)
2. Cancer-endometrial, ovarian , breast
3. Metabolic diseases.
4. Psychological problems

Very little importance being given to lifestyle modifications. Most effective way in pcos management is to reduce 5-10% body weight by lifestyle modification.

AIM AND OBJECTIVES-To compare the effectiveness of low carbohydrate diet versus balanced diet in women with polycystic ovarian syndrome with respect to menstrual irregularity, obesity/ overweight and conception, pregnancy in married patients with polycystic ovarian syndrome.

METHODS:-

STUDY DESIGN- An open label two arm randomized controlled trial population- patients of polycystic ovarian disease of age group 18 -35 yrs

All patients would be divided in control and intervention group.

- All polycystic ovarian syndrome patients included in the study would be observed monthly for a period of 6 months
- Total 186 patients of pcos taken for study.

All patients studied for physical and laboratory changes before during and at the end outcome

PRIMARY OUTCOME – Menstrual regularity (an initiation of menses or significant shortening of cycle length where possible (21-35 days menstrual cycle length)

SECONDARY OUTCOME

1. Weight loss in patients of pcos
2. Symptomatic improvement in patients of pcos. (hirsutism assessed clinically by ferriman-gallwey score), acanthosis nigricans, acne
3. LABORATORY VALUES-FASTING (12 HR) INSULIN FASTING, SUGAR, LIPID PROFILE.

RESULTS:-

TOTAL PATIENTS – 186 BALANCED DIET – 107

LOW CARBOHYDRATE DIET – 79

We observed irregular to regular menses in 39 patients, out of 38 patients 12 patients conceived, hirsutism and acanthosis was reduced in 38 and 34 patients respectively, weight and bmi reduced in 66 patients.

We observed irregular to regular menses in 11 patients, out of 47 patients 0 patients conceived, hirsutism and acanthosis was reduced in 6 and 10 patients respectively, weight and bmi reduced in 40 patients of balanced diet.

CONCLUSIONS:- Low carbohydrate diet helps in achieving regular menses, infertility and weight reduction.