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Research Article

Clinical Profile and Outcome of PCOS in Rural Population

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Abstract: Polycystic ovary syndrome (PCOS) has turned out to be a common clinical and public health problem in last few decades. It is estimated that approximately one in every five women of reproductive age are affected by this problem. It has significant and varied clinical implications such as reproductive, metabolic and psychological affection. Liberal use and availability of ultra-sonography, improved facilities for hormone estimation and laparoscopy has resulted in early diagnosis and treatment of the condition .Present study was carried out in medical college hospital located in rural area. Menstrual abnormalities and sub-fertility or infertility are the commonest presentation of PCOS. It is commonly seen among women with high BMI and features of hyper- androgenism. Majority of cases had positive evidence of PCOS either in pelvic ultra-sonography or in hormonal estimation. Induction of ovulation with clomiphene citrate and gonadotrophins was done with satisfactory response. Ovarian drilling and insulin sensitizes were kept as second line drugs. Life time modification was advised to all women .The compliance to the treatment was extremely good when it was associated with infertility.
Keywords: Polycystic ovary syndrome (PCOS), sonography, gonadotrophins

INTRODUCTION

Polycystic ovarian syndrome is a hetero-genous condition characterized by menstrual irregularity, hyper- androgenism, obesity and polycystic ovaries on ultrasound [1]. It has significant and varied clinical implications such as reproductive (infertility, hyper-androgenism, hirsutism), metabolic (insulin resistance, impaired glucose tolerance, type 2 diabetes mellitus, adverse cardiovascular risk profiles) and psychological features (increased anxiety, depression and worsened quality of life) [2]. ASRM/ESRHE criteria for diagnosis of PCOS are oligo / an-ovulation, hyper- androgenism (clinical / bio chemical) and polycystic ovaries [3]. Present study was carried out with the objective to find out clinical profile and outcome of PCOS in rural Population.

MATERIAL AND METHODS

Study design

Observational Study

Study Period & Duration

Jan 2013 to Dec 2013 (1 Year)

Place of Study

Rural Medical College, Loni

Study Subjects: 40

Inclusion Criteria

All Women in the age group of 15-30 years presenting with features of an-ovulation or oligo-ovulation and or features of hyper- androgenism.

Methodology

All women recruited in the study were interviewed for their complaints. Married women were examined in outpatient department as per standard protocol of infertility management. They were subjected to the pelvic ultrasonography, haematological and endocrinal investigations. The patient and parents /relatives were counseled about the plan of management. Unmarried girls with high BMI were treated with hormonal pills and were advised for weight reduction .Married women were also advised about life style modifications .They were treated with drugs for ovulation induction and reducing insulin resistance .Follicular monitoring was done from tenth day of menstruation .Injection human chorionic gonadotrophis 10,000 IU were administered when follicle size was around 18 to 20 mm and endometrial thickness of around 10mm.The dose of the ovulation inducing agent

was increased in stepwise manner whenever needed. These agents were used for maximum six to nine cycles .Non responders were then treated with ovarian drilling. Further on non responders were advised to consult infertility specialist.

RESULT AND DISCUSSION

PCOS is the most common endocrine abnormality in reproductive- age women. The prevalence of PCOS is traditionally estimated at 4% to 8% from studies performed in Greece, Spain and the USA [1-4]. The prevalence of PCOS has increased with the use of different diagnostic criteria and has recently been shown to be 18% (17.8 ± 2.8%) in the first community-based prevalence study based on current Rotterdam diagnostic criteria [5]. USG Criteria for diagnosis of PCOS are presence of 12 or more follicle in one ovary arranged peripherially in necklace pattern, each follicle measures 2-9mm in diameter and ovarian volume > 10cm cube. Laparoscopic criteria include enlarged pearly white ovaries with multiple follicles. Endocrine abnormalities associated with PCOS are elevated LH, normal FSH and LH/FSH ratio > 3:1. Long term consequences of PCOS include metabolic syndrome like diabetes mellitus, dyslipidemia and coronary heart disease .Women with PCOS are prone for development of endometrial and breast cancer in later life [5].

Seventy five percent of women suffering from PCOS were in between the age group of 19 to 26 years and ten percent were below 19 years of age. This could be attributed to the age at marriage in rural area and subsequent investigations for evaluation of infertility. Eighty percent of women were married and only twenty percent were unmarried at the time of presentation. Unmarried women presented mainly with complaints of menstrual abnormalities like oligo and or hypo-menorrhoea .Remaining cases had isolated secondary amenorrhoea. The duration of married life was less than two years in forty percent women at the time of presentation to the gynaecologist. Thirty five percent women were either overweight or obese at the time of diagnosis. Only ten percent women belonged to lean PCOS category. Eighty to eighty five percent cases had sonographic and endocrinal evidence of PCOS.

Weight reduction and life style modification were advised to all women having abnormal BMI values .Most of the unmarried girls and few recently married girls with menstrual abnormalities were treated with combined oral contraceptive pills. Married women who were willing for conception were treated with clomiphene citrate in the standard dosage. The dose was stepped up whenever required or was combined with gonadotrophins. Ovulation was triggered by single dose of human chorionic gonadotrophins (10,000 IU), when follicle size and endometrial thickness was optimum. Non responders to above treatment were additionally supported by insulin sensitizers, cabergoline or micro nutrients. Ovarian drilling was done in thirty percent cases. Intrauterine insemination of semen was done in thirty percent cases. Eighty five percent cases got regular ovulation and sixty percent cases conceived within two years of beginning of the treatment. Cases who did not conceive after two years of treatment were referred to specialist in infertility management for expert opinion further treatment.

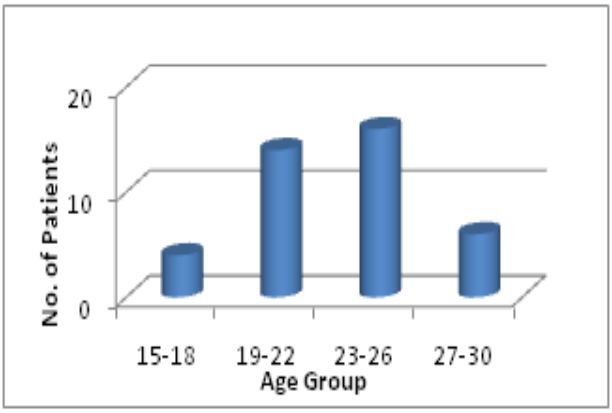

Fig. 1: Age wise distribution

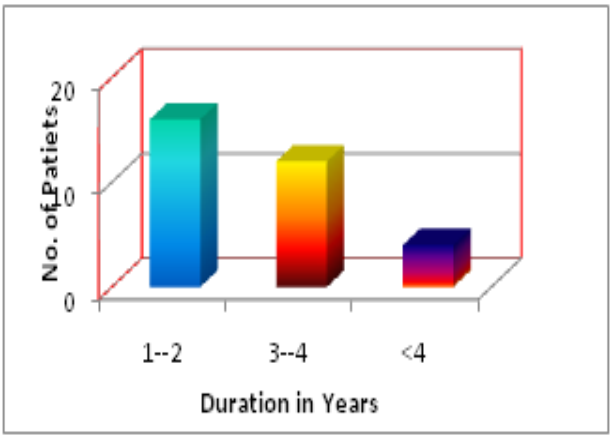

Fig. 2: Duration of married life

Fig. 3: Marital status

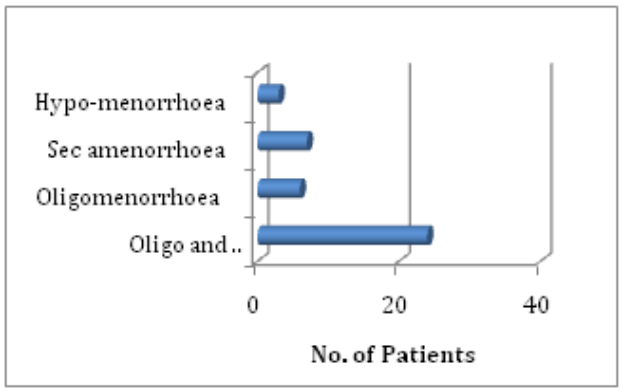

Fig. 4: Chief menstrual complaints

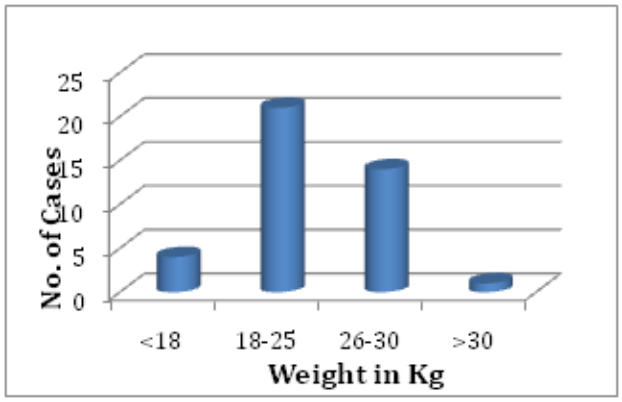

Fig. 5: Body Mass Index

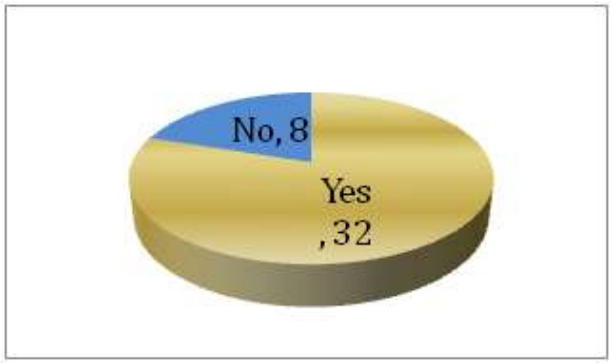

Fig. 6: Utrasonographic/ Laparoscopic evidences

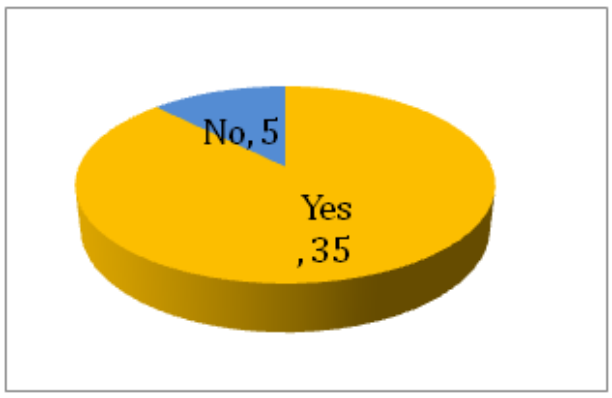

Fig. 7: Endocrinal evidence of PCOS

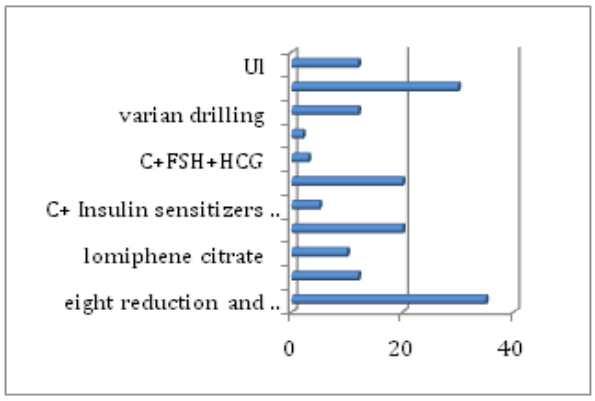

Fig. 8: Modalities of treatment

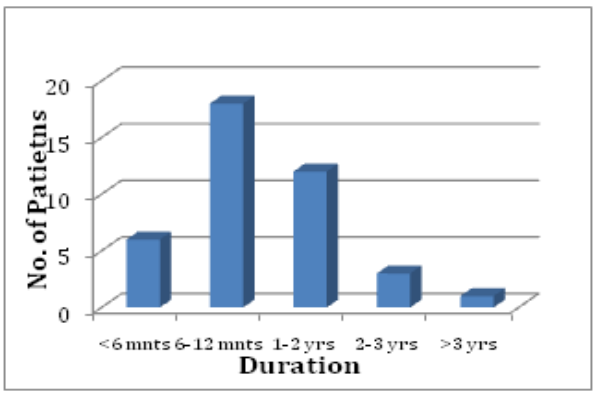

Fig. 9: Duration of total therapy

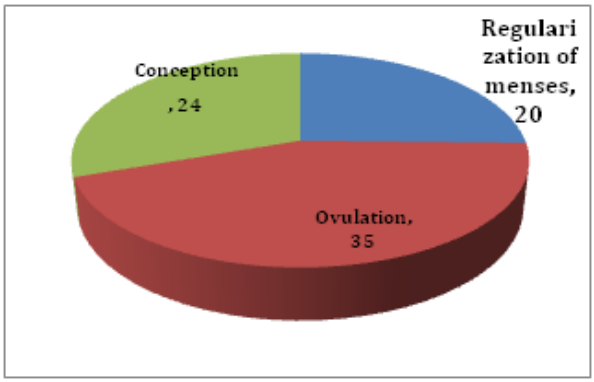

Fig. 10: Outcome of treatment

CONCLUSION

PCOS is the commonest endocrinal disorder seen among women in early years of reproductive phase. Clinical suspicion and subsequent confirmation with imaging, hormonal assay and diagnostic laparoscopy help in management. Mainstay of treatment lies with weight reduction, ovulation induction by medical and surgical means, use of adjuvant with induction of ovulation, appropriate use of insulin sensitizers, micronutrient, anti-androgens, bromo-ergocryptine and lifestyle modification.

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