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Research Article

Usage of Clomiphene Citrate in Infertility

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Abstract

This study was planned to find out the use of Clomiphene citrate and its efficacy in infertility. A cross sectional observational study was planned with the sample size of 90. Retrospective data from the patients' records were entered into the case record form. Collected data was analysed statistically. 94 patients were studied in that 26.6% cases were male infertility and 73.4% cases were female infertility. Clomiphene citrate was the commonly used drug for oligospermia. Among females almost equal numbers of patients were treated with either Clomiphene alone or in combination with Gonadotropin. Pregnancy rate was more when Clomiphene is combined with Gonadotropin compared to Clomiphene alone.

Key words: Clomiphene citrate, Infertility.

INTRODUCTION

Infertility is defined as failure to conceive within one year or more of regular unprotected coitus. It may be due to pathological causes by males or females. To treat Polycystic Ovarian Disease (PCOD), Clomiphene is the first line of treatment for ovulation induction[1]. Minimal stimulation with Clomiphene is cheaper than Gonadotropin stimulation[2]. There are chances of twin gestation after Clomiphene citrate administration. Potential supportive effect on pregnancy rate when Clomiphene citrate is used in combination with oral estradiol compared to Clomiphene alone[3]. Clomiphene does not appear to have strong effects on melanoma, thyroid, cervical, cancer risk after its use in infertility[4]. But women taking Clomiphene citrate reported high frequencies of psychological side effects[5] and uterine cancer with higher doses[6]. So this study was planned to find out the use of Clomiphene citrate and its efficacy in infertility.

METHODOLOGY

Approval from Institutional Human Ethics Committee, PSGIMSR was obtained. A cross sectional observational study was planned with the sample size of 90. Retrospective data from the patients' records from PSG Hospitals were entered into the case record form.

Data from male infertility due to oligospermia and female infertility due to anovulatory cycles were collected. Data regarding name, date of birth, address, phone number was not recorded. Drug history was entered in detail. Collected data was analysed statistically.

RESULTS

94 patients were studied in that 26.6% cases were male infertility and 73.4% cases were female infertility (Figure 1).

Among males 100% of patients were given only Clomiphene. But there is no follow up on pregnancy rate.

Among females 36.2% of patients have been treated with only Clomiphene. 29 % of patients were treated with Clomiphene followed by Letrozole. 34.8% were treated with Clomiphene and Gonadotropin (Figure 2).

50% of patients with Clomiphene and Gonadotropin became pregnant.40% of patients treated with Clomiphene alone became pregnant. And 25% of patients taking Clomiphene followed by Letrozole became pregnant (Figure 3).

DISCUSSION

94 patients were studied in that 26.6% cases were male infertility and 73.4% cases were female infertility (Table 1). This shows that Clomiphene was

commonly prescribed in female infertility than male infertility.

Among males 100% of patients were given only Clomiphene. But there was no follow up on pregnancy rate.

Among females 36.2% of patients have been treated with only Clomiphene. 29 % of patients were treated with Clomiphene followed by Letrozole. 34.8% were treated with Clomiphene and Gonadotropin (Table 2). From this it was evident that one third of people were getting only Clomiphene and rest of the people were getting either Letrozole or Gonadotropin as add on drug.

50% of patients with Clomiphene and Gonadotropin became pregnant.40% of patients treated with Clomiphene alone became pregnant. And 25% of patients taking Clomiphene followed by Letrozole became pregnant (Table 3). This shows that almost equal number of persons with Clomiphene or added with gonadotropin were becoming pregnant. The pregnancy rate was more with the above group of patients than with Clomiphene followed by Letrozole. So Clomiphene alone itself will produce good pregnancy rate compared to adding either with Gonadotropin or Letrozole.

CONCLUSION

- Infertility was more in females.
- Clomiphene citrate was the commonly used drug for oligospermia.
- Among females almost equal number of patients were treated with either Clomiphene alone or in combination with Gonadotropin
- Although pregnancy rate was more when Clomiphene was combined with Gonadotropin compared to Clomiphene alone, those who cannot afford Gonadotropin this can be alternative with good % of pregnancy rate.

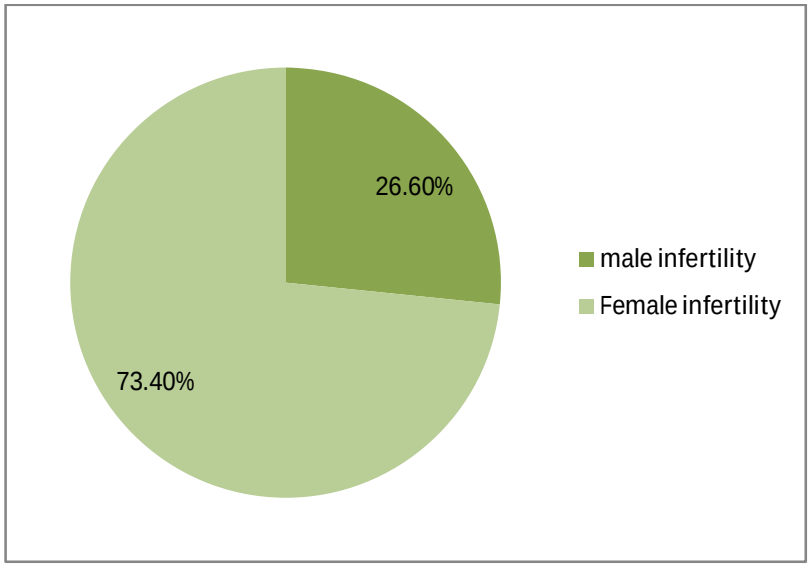

Figure 1: Sex Distribution of Infertility in %

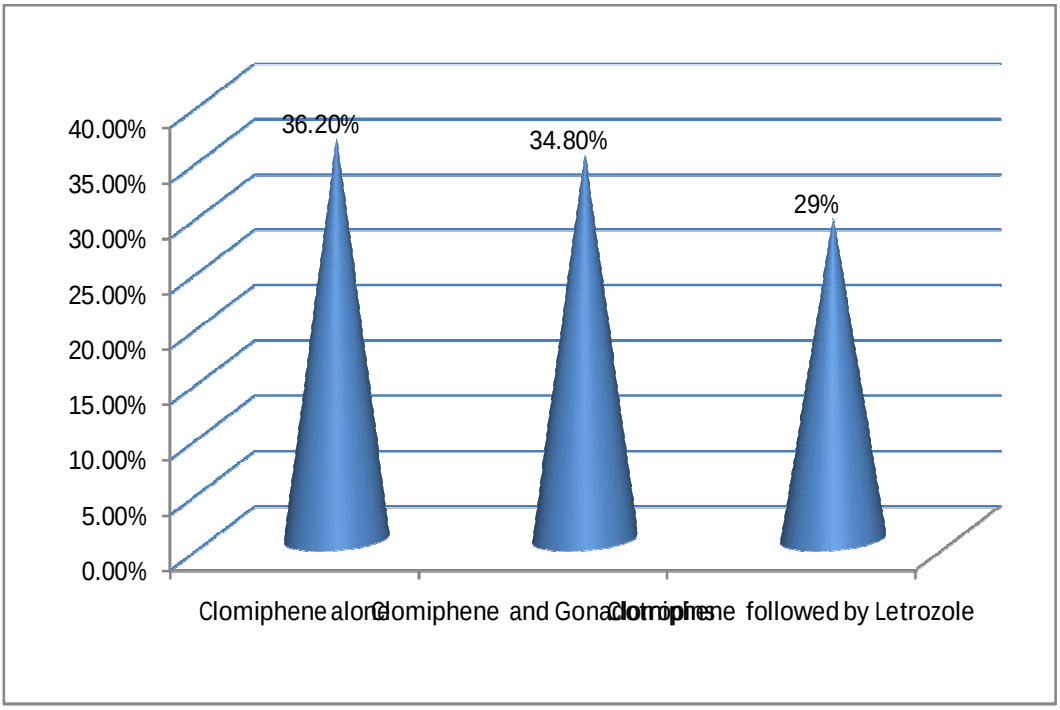

Figure 2: Drugs used for Infertility in %

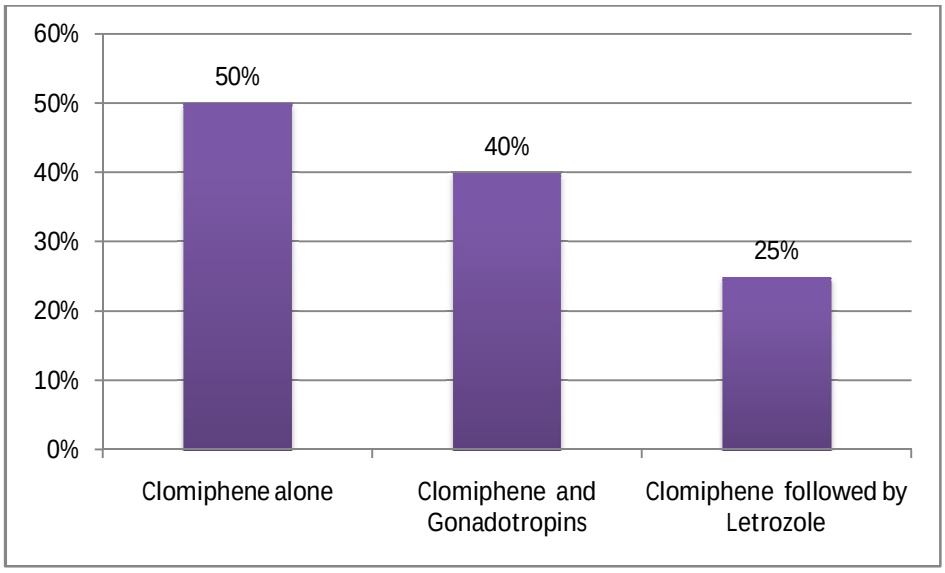

Figure 3: % of pregnancy after treatment in females

Table 1: % of patients taking Clomiphene

Sex	% of patients taking Clomiphene
male infertility	26.60%
Female infertility	73.40%

Table 2: % of drugs used in Infertility

Drugs used in infertility	In %
Clomiphene alone	36.20%
Clomiphene and Gonadotropins	34.80%
Clomiphene followed by Letrozole	29%

Table 3: % of pregnancy after treatment in females

Drugs used	% of pregnancy
Clomiphene alone	50%
Clomiphene and Gonadotropins	40%
Clomiphene followed by Letrozole	25%

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