

Evaluation Of Ideal Body Mass Index For Infertile Patients With Or Without Polycystic Ovary Syndrome (PCOS) During ART.

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INTRODUCTION

- ❖The total fertility rate (births per woman) has declined from 5.7 in 1990 to 3.9 in 2009 (Qatar National Development Strategy 2011-2016)
- ❖In Qatar decreased fertility rate (5.7 in 1990 to 1.91 in 2016) has been observed with increased prevalence of obesity.
- ❖World Health Organization (2015) – “ Gulf countries have highest rate of obesity”
- ❖At present, there still are some debates about the effect of BMI on outcomes of in vitro fertilization-embryo transfer (IVF-ET) or intra-cytoplasmic sperm injection (ICSI), due to differences in races, ovulation induction protocols, ART and statistical analyses.
- ❖There is not an absolute consensus based on Polycystic ovarian syndrome (PCOS), which is linked to obesity, is known to cause subfertility so the study was conducted at a secondary hospital in Qatar to look into the prevalence of obesity and PCOS and treatment outcomes in infertility patients.

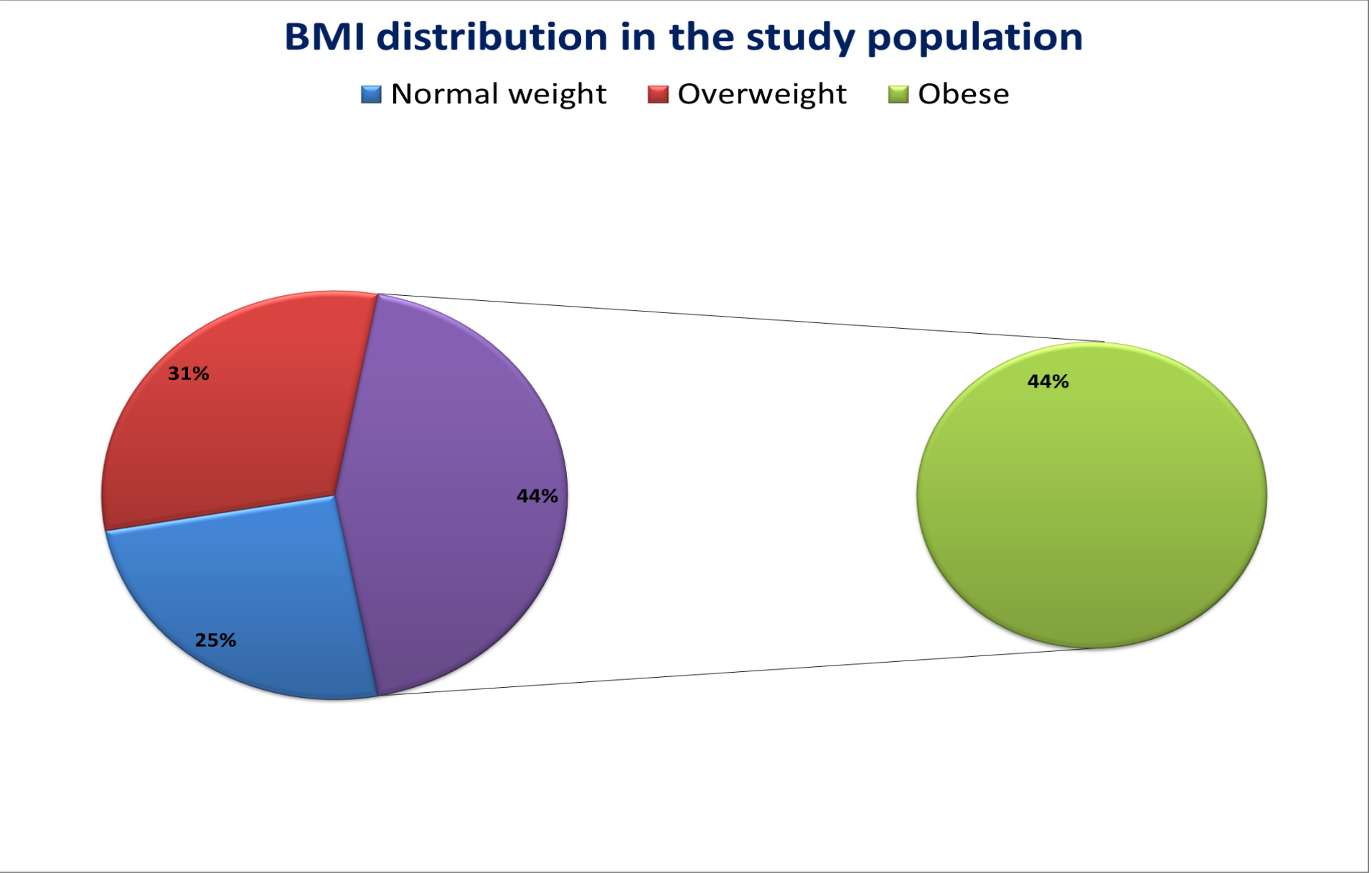
Objectives

To assess the ideal BMI in both PCOS and non-PCOS women.

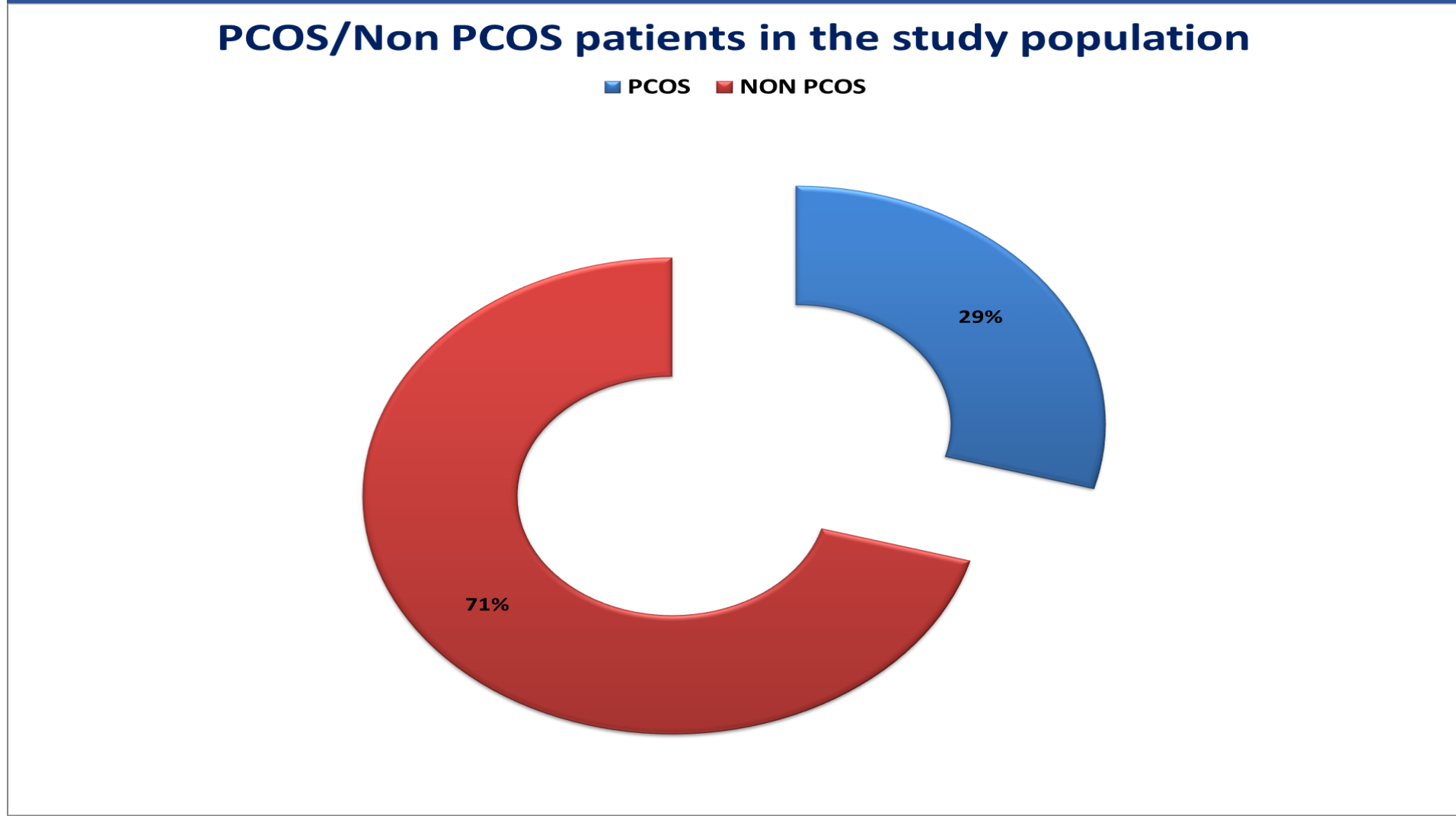
Methods

- ❖ A retrospective service evaluation was conducted at a secondary hospital in Qatar.
- ❖ A total of 143 patients were included and 10 patients were excluded due to tubal factors and male factor associated infertility and incomplete documentation.
- ❖ These patients were followed up for 18 months to assess the results of treatment outcomes.
- ❖ They were divided on the basis of diagnostic criteria for PCOS in group A (with PCOS) and group B (Non PCOS). The prevalence of obesity and PCOS was assessed.
- ❖ The pregnancy rates were calculated in each group. Odds ratio and Confidence interval were calculated using Medcal online software.

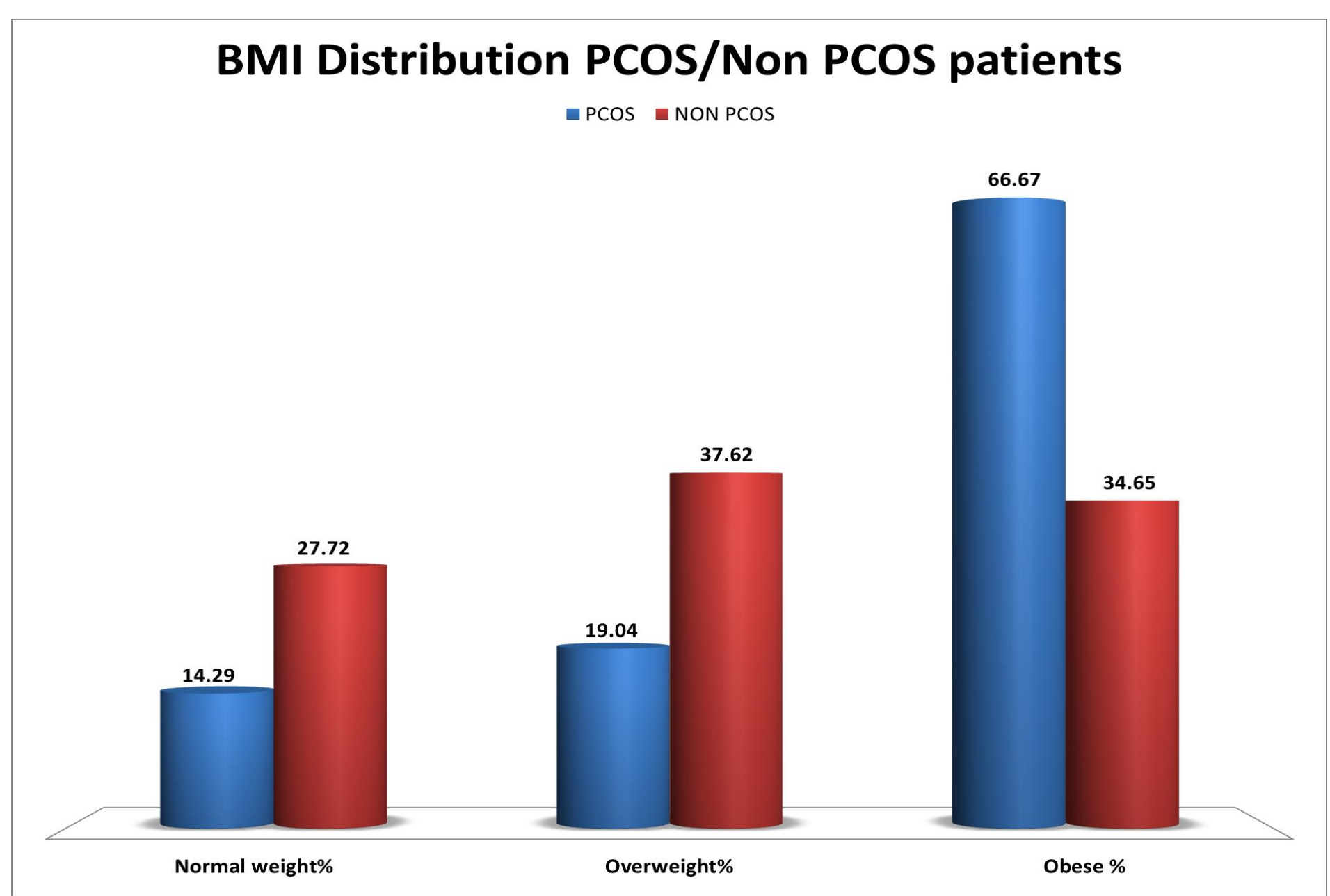
Results



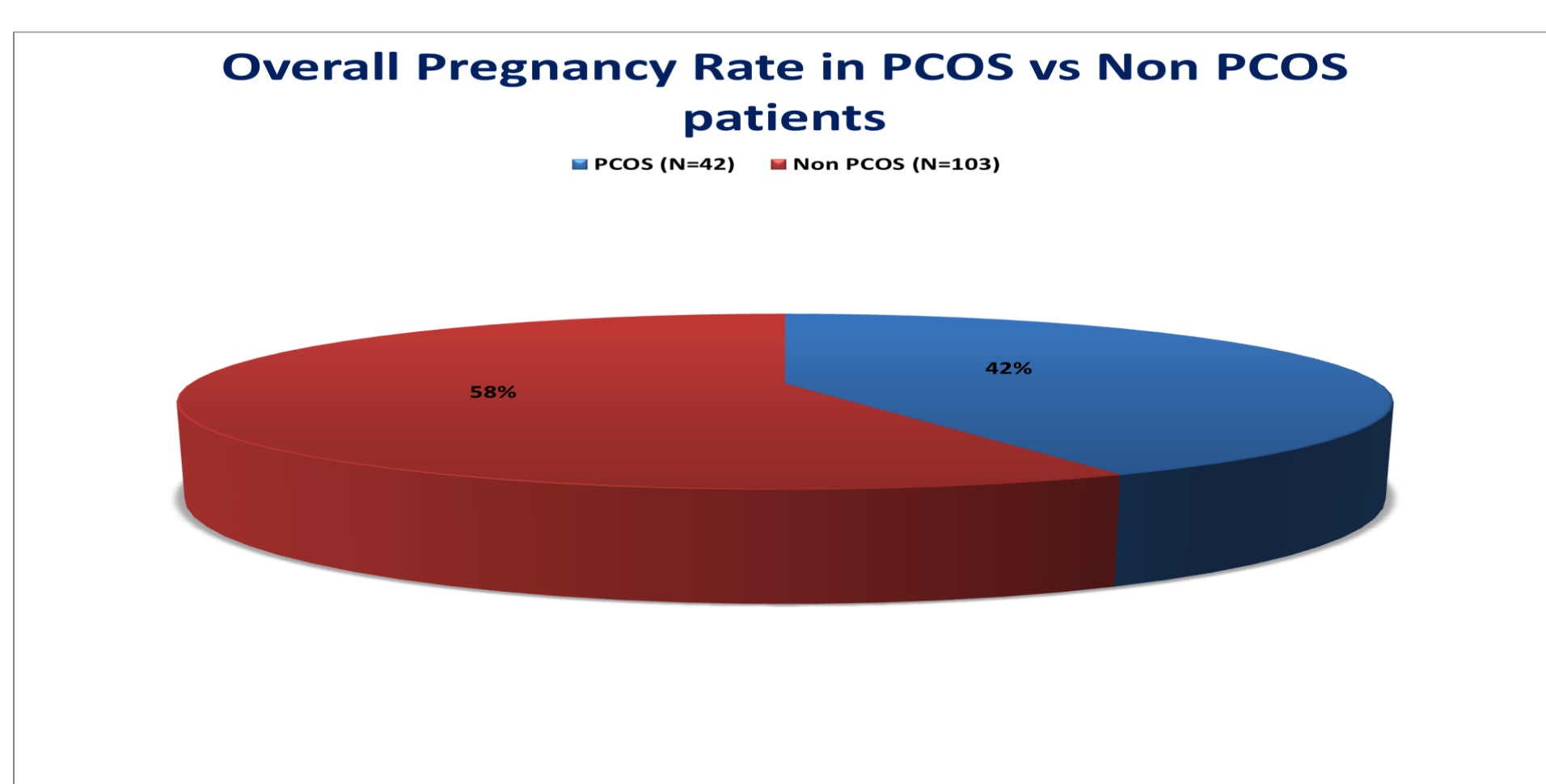
Results



Results

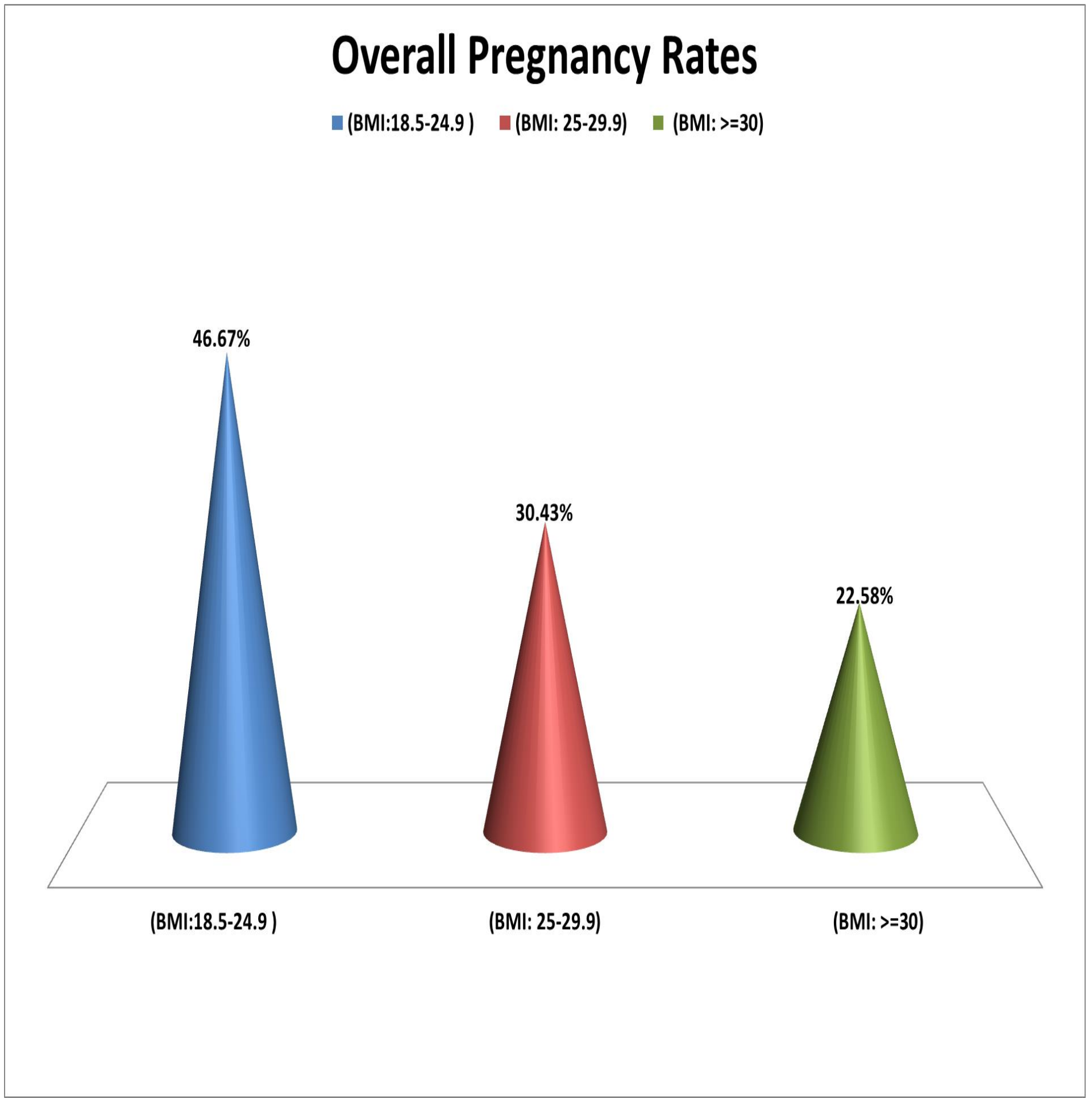


Results



- ✓ In the study population the prevalence of obesity and PCOS were 41% and 29.37% respectively.
- ✓ The average BMI in PCOS and non PCOS patients was 33.64 and 28.7 kg/m2 respectively(OR- or-3.9608, CI-1.96-7.99, p=0.0001).
- ✓ Prevalence of obesity in PCOS and non PCOS patients were 66.7% and 34.65% respectively.
- ✓ Overall pregnancy rate in patients with PCOS was 25% and in non PCOs was 34% (OR-0.6871,CI-0.312-1.5,p=0.3515).
- ✓ Odds ratio for pregnancy rate in patients with obesity was 2.06 (95% CI -0.78 to 5.41, P < 0.05).

Results



Statistics

	Group B	Group C
Odd's Ratio	1.400	3.067
95% CI	1.22 to 3.72	1.19 to 7.8
Z score	0.664	2.330
Value of P	0.507	<0.05

Conclusion

- ✓ A body mass index of less than 25 Kg/m2 is optimal in both PCOS and non-PCOS infertile women for better ART outcomes.

References

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2. Hendaus, Mohamed A et al. “Breastfeeding rates and barriers: a report from the state of Qatar.” International journal of women's health vol. 10 467-475. 22 Aug. 2018, doi:10.2147/IJWH.S161003

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