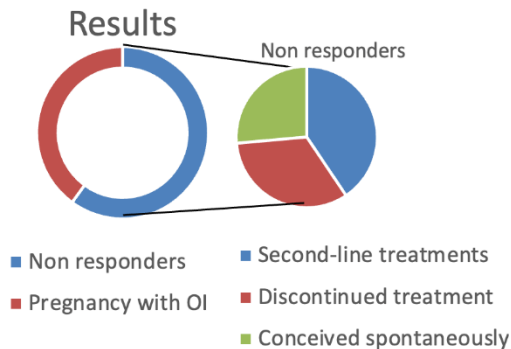


Introduction: Ovulatory disorders account for approximately 25% of infertility cases. The first-line treatment for oligo or anovulatory infertility is ovulation induction (OI). However, in current clinical practice, both clinicians and patients often opt for IVF earlier due to the desire for faster results. Identifying predictive factors for responsiveness to ovulation induction is essential for optimizing patient selection, reducing unnecessary treatments, distress and drug-related side effects.

Objectives: To analyze the clinical course, to evaluate the pregnancy rate of ovulation induction and to identify potential predictors of treatment response (including AFC, age, BMI, and AMH) in patients with infertility due to endocrine-ovulatory disorders who underwent ovulation induction at our center. Moreover, to examine the subsequent reproductive outcomes in patients who did not conceive after ovulation induction, comparing the time to pregnancy (TTP) of expectant management with unprotected intercourse versus progression to second-line treatments.

Results: Study Population: 82 patients: mean age 31.5 years, mean BMI 23.1 kg/m², mean AMH 6.27 ng/mL, mean AFC 25.8, 214 ovulation induction cycles

Clinical Pregnancy with ovulation induction:
- Achieved in 33 patients (40%) - Mean number of cycles to pregnancy: 2.5 - Mean TTP: 4.5 months
AFC was a significant predictor of pregnancy (pregnant: 31.5 ± 20.1 vs not pregnant: 22 ± 11.7), significance maintained after adjusting for age, BMI, AMH



Non responders:	
Second line treatment	Expectant management
21 patients (43%) - Resulted in 10 pregnancies (47%) - TTP : 12 months	36 patients (57%) - Resulted in 8 spontaneous pregnancies (28.5%) - TTP: 37 months
Age, AMH, AFC, BMI, and choice of IVF/ICSI vs expectant management were not significant predictors of pregnancy beyond ovulation induction	

Conclusions: Ovulation induction remains the first-line treatment in patients with infertility due to endocrine-ovulatory disorders. This study highlights the predictive value of AFC in determining the response to ovulation induction. Although AMH is closely linked to AFC, it did not show the same predictive value, suggesting that AFC may better capture the ovarian response to treatment. Furthermore, our findings suggest that proceeding to second-line treatments such as IVF/ICSI does not appear to offer a clear advantage over expectant management with unprotected intercourse in patients who do not conceive after ovulation induction. However, this result may be influenced by the limited sample size.