Premature Ovarian Failure is a syndrome that is clinically defined by failure of the ovary before the age of 40 yr. It has a multicausal pathogenesis.

Objective: to reveal an existence of Inhibin ? Gene Mutation in Women with Premature Ovarian Failure in Uzbekistan.

Material and methods: The study was performed at the Scientific and Clinical Centre of Endocrinology, Uzbekistan Public Health Ministry. A total of 38 women were examined, 20 women were with Premature Ovarian Failure, and 18 women were as a control group.

The study involved the collection of medical and reproductive history, hormonal status evaluation and DNA sequence of DNA samples of all women.

Results: There was no statistically significant difference in demographic and clinical parameters between the two groups after randomization. The average age of the first group was 34.9 ± 4.44 and 50.45 ± 3.64 years in the control group. Age at menarche was 12.7 ± 1.5 and 13.3 ± 1.2; parity 1.7 ± 1.2 and 2.0 ± 1.6, respectively. After analyzing the hormonal profile of surveyed women, statistical decrease in estradiol (p < 0.05), testosterone (p <0.001) and free androgen index (p <0.001) levels in women with POF was revealed, compared with the control group. Average FSH levels did not differ among both groups and was 72.0 ± 21.2 IU / l. Inhibin ? gene mutation in position 769 from G to A (from GCT to ACT) observed more often in women with POI compared with the control group women. INH ? G769A variant encountered in 3 of 20 (3/20) women with POF, whereas in the control group was not revealed 0.18. (p < 0.05).

Conclusions: The diagnostic criteria for POF can be considered as the level of FSH > 40 IU / L and estradiol levels below 50 pg / ml. Identification of INH? gene mutations can be used as a diagnostic marker of premature ovarian failure, which in turn will lead to early diagnosis and treatment of POF.