



Parameters of ovarian reserve in patients with chronic kidney disease depending on glomerular filtration rates.

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THE AIM OF THE STUDY was to assess the parameters of ovarian reserve in patients with chronic kidney disease stages 3-4 and compare them between 3 groups of patients with decreased GFR

MATERIALS AND METHODS:

The examination included 24 patients ages 23 to 45, all with chronic kidney disease stages 3-4.

The examined parameters of ovarian reserve included: transvaginal ultrasonography (to assess AFC and ovarian volume), serum AMH, FSH and E₂ assessed in early follicular phase of menstrual cycle.

All patients included to the study had been diagnosed with CKD (kidney damage or dysfunction) and had decreased GFR below 60 ml/min/1.73 m² for at least 3 months.

Patients were divided depending on the glomerular filtration rates into 3 groups:

- with GFR 45-59 ml/min/1,73 m²
- with GFR 30-44 ml/min/1,73 m²
- with GFR 15-29 ml/min/1,73 m²



RESULTS:

Parameters of ovarian reserve: ovarian volume, AFC, AMH, FSH; estradiol (E₂) depending on estimated glomerular filtration rates (eGFR) ranges in patients with CKD

Parameter of ovarian reserve		GFR 45- 59 (mL/min/1.73 m ²)		GFR 30- 44 (mL/min/1.73 m ²)		GFR 15- 29 (mL/min/1.73 m ²)		P
		x ± SD	M _e	x ± SD	M _e	x ± SD	M _e	
Ovarian volume	Right ovary (cm ³)	3.85± 2.14	3.55	3.49±0.63	3.60	2.68± 0.30	2.74	0.476
	Left ovary (cm ³)	4.51± 3.07	3.70	2.87±1.12	2.73	2.20± 0.58	2.35	0.208
Antral follicle count (AFC)	Right ovary (n)	4.06±1.44	4.00	4.00±1.73	3.0	3.33± 1.53	3.00	0.698
	Left ovary (n)	4.00±1.55	4.00	3.60±0.55	4.0	2.00±1.00	2.00	0.099
AMH (ng/mL)		1.40± 0.65	1.52	1.07±0.65	1.09	0.63±0.43	0.63	0.189
FSH (IU/L)		8.42± 4.06	7.52	8.27±1.23	8.47	6.71± 1.47	7.39	0.593
E ₂ (pg/mL)		81.98±59.15	65.15	151.03±175.54	88.0	149.81±59.78	139.20	0.135

CONCLUSION:

There are no significant differences in parameters of ovarian reserve: ovarian volume, AFC, AMH, FSH and E₂ among the patients in stage 3 or 4 of chronic kidney disease.