ISSN: 2249-7137 Vol. 12, Issue 03, March 2022 SJIF 2022 = 8.252

A peer reviewed journal

## ANALYSIS OF THE RESULTS OF TREATMENT OF MATURE AND YOUNG PATIENTS WITH GRANULOSE CELL OVARIAN TUMORS IN THE ANDIJAN REGION

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> DOI: 10.5958/2249-7137.2022.00191.4

### **ABSTRACT**

Granulose-cell ovarian tumors are non-epithelial neoplasms of the ovarian sex cord and are part of the group of granulostromal tumors. The most likely source of these tumors is granulosa of the primordial ovarian follicles as a result of hormonal imbalance. Tumors make up, according to various authors, from 0.6 to 7.5% of all solid ovarian neoplasms. The disease occurs at any age, but most cases are detected in 40-60 years.

**KEYWORDS:** Granulose-Cell Ovarian Tumors, Ovarian Resection, Adjuvant Polychymotherapy.

### INTRODUCTION

In his lectures, Davydov M.and other scientists note that most GCOTAT produce steroid (estrogens, less often progesterones and androgens) and glycoprotein (inhibin, Muller inhibitory substance) hormones, which leads to menstrual disorders such as hyperpolymenorrhea, amenorrhea with subsequent acyclic spotting or bleeding and the development of dyshormonal symptoms of rejuvenation. Due to such a vivid clinical picture, 90% of patients are diagnosed with the disease already in stage I [1]. At the same time, there are reports in the literature of hormone-inactive GCOT, which, according to some authors, indicates a high degree of anaplasia of neoplastic cells and a poor prognosis [2]. In general, GCOTAT are characterized by a favorable prognosis: 5-year overall survival in stage I is 98-100%, stage II—IV -23% [3]. Recurrences of the disease after surgical treatment occur in 20-40%: in 1/3 of patients,

ISSN: 2249-7137 Vol. 12, Issue 03, March 2022 SJIF 2022 = 8.252 A peer reviewed journal

progression occurs within the first 5 years, in the rest-later [4]. Scientists today granulose cell adult-type ovarian tumors are considered "unpredictable tumors", since the question of their malignant potential and reliable clinic morphological prognostic factors has not been finally resolved.

#### Materials and methods of research:

The examination methods were based on outpatient charts, ultrasound examinations, mammography data, medical histories, histological and cytological results, and blood tests for oncomarkerthe CA-125 cancer marker and inhibin A and B.

A total of 34 patients with granulose-cell ovarian tumors in 2001-2021, who passed through the gynecological department of the Andijan branch of the Republican Specialized Scientific and Practical Center of Oncology and Radiology, were examined. Of these, 5 are of the juvenile type, and 29 are of the adult type.

### **Research results:**

Distribution of the examined patients by age:

TABLE 1

	GCOTAT		GCOTJT	
AGE	Abs=29	100%	Abs=5	100%
1-10			4	80%
11-20			1	20%
21-30	2	6,9%		
31-40	4	13,7%		
41-50	11	38%		
51-50	11	38%		
61- and older	than 1	3.4%		

The table 1 shows that Granulosa Cell Tumors of the Ovaries of the Juvenile Type (GCTOJT) are more common before 10 years of age. In this table, GCTOJT in 4 patients, which is 11.7% of the total number of GCT, but 80% of the number of patients with GCTOJT. Also seen and 1 patient aged 15 years, which accounted for approximately 3% of the total number of observed patients, but 20% of all with GCTOJT. In our observations, GCTOAT was not found in patients under 20 years of age. But in many literatures there is evidence that this variant of GCT occurs in patients up to 20 years of age. In patients aged 21-30 years, GCTOAT in 2 women, which accounted for approximately 5.9% of the total number of patients with GCT and 6.9% of patients with GCTOAT. In women aged 31-40 years, also in 4 observed, which is 13.7% of all GCTOAT, and 11.7% of the total number of women with GCT. In women aged 41-50 years, GCTOAT was found in 11, which accounted for 38% of all GCTOAT and 32.3% of the total number of patients with GCT. The age group of 51-60 years has similar indicators of the GCTOAT. And the only patient, aged 64, was also diagnosed with GCTOAT, which accounted for 3.4% of all GCTOAT and approximately 3% of all GCT. As can be seen from Table 1, we did not notice GCTOJT in the age groups of 20-60 years and older. But in the literature there are many observations of the occurrence of this type of GCT in women over 20 years old.

ISSN: 2249-7137 Vol. 12, Issue 03, March 2022 SJIF 2022 = 8.252

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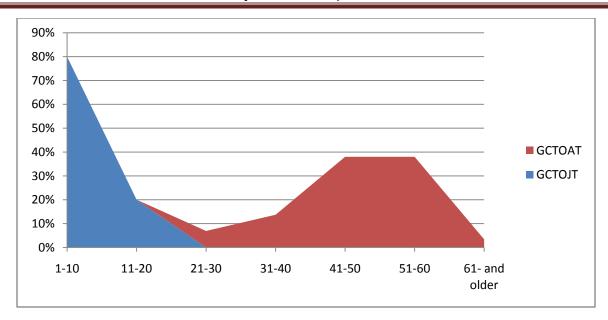


Diagram 1

In diagram 2, we can see that the peak incidence of GCTOJT occurs in the age group under 10 years old, and the peak incidence of GCTOAToccurs in the age group of 40-60 years.

Distribution of patients according to morphological changes in the target organs of steroid hormones produced by GCTOAT:

TABLE 2

Morphological changes	Abs	<u>%</u>
Glandular cystic hyperplasia of the endometrium	11	<u>38%</u>
Endometrial polyps	2	6,8%
Synchronous endometrial cancer	1	3,5%
Uterinemyoma	10	34,4%
Myometrialhypertrophy	1	3,5%
Internal and external endometriosis	2	6,8%
Synchronous breast cancer	1	<u>3,5%</u>
Endometrial atrophy	1	3,5%

The table 2 summarizes the data of morphological examinations of target organs of steroid hormones produced by GCTOAT. As you can see, most of the changes show the effect of increased doses of estrogens. For example, glandular cystic hyperplasia was observed in 11 women, which accounted for 38%, endometrial polyps were only in 2, and accounted for 6.8%, synchronous endometrial cancer was in 1 woman - 3.5%, uterine myoma in 10 women, which was 34.4 %, hypertrophy myometrium in 1 comprising 3.5%, internal and external endometriosis in 2, which is approximately 6.8%. There was also a case with exposure to increased doses of androgens - endometrial atrophy in 1 woman, which is approximately 3.5%.

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Symptoms associated with hormonal imbalances in women with GCTOAT:

TABLE 3.

Symptoms	abs	%
Amenorrhea	4	13,8%
Acyclicmetrorrhagia	4	13,8%
Amenorrhea followed by acyclic spotting	2	6,9%
Hypermenorrhea	1	3,5%
Opsomenorrhea	1	3,5%
Amenorrhea followed by uterine bleeding	1	3,5%
Opsomenorrhea followed by amenorrhea	1	3,5%
Bloody discharge in postmenopausal women	14	48%
Virilizationandhirsutism	1	3,5%

The table 3 contains all the complaints of women with GCTOATrelated to hormonal disorders. It can be assumed that most metrorrhagia, hypermenorrhea and spotting are associated with the production of tumor estrogen, and opsomenorrhea and amenorrhea are associated with the production of inhibin, and virilization and hirsutism with the production of androgens. Thus, most GCTOAT tumors produce estrogen. Amenorrhea was observed in 4 cases, which amounted to 13.8%. A similar situation with acyclic metrorrhagia - in 4 women - 13.8%. 2 women had amenorrhea followed by spotting, which amounted to 6.9%. 1 patient complained of hypermenorrhea, also 1 complained of opsomenorrhea, 1 complained of amenorrhea followed by uterine bleeding, another one complained of opsomenorrhea followed by amenorrhea and virilization and hirsutism. Each of the cases amounted to 3.5%. 14 women complained of spotting in postmenopause, which was approximately 48%. Total symptoms associated with hyperestrogenia accounted for approximately 76%.

Symptoms of hormonal disorders in women with GCTOJT:

TABLE 4

Symptoms	abs	%
Bloody discharge	2	40%
Enlargement of mammary glands	3	60%
Enlargementofuterus	2	40%
Pubic hair growth	1	20%
Virilizationandhirsutism	1	20%

Table 4 can be called provisional due to the small number of patients we observed. A total of 5 girls were observed, 4 of which were in the period of childhood, respectively, the signs were mainly observed in them and therefore were regarded as pathological. 1 girl was in adolescence, but menarche was not observed, but hirsutism and virilization occurred. This may indicate that the tumor in this case produced androgens. And 4 girls with symptoms of estrogen-producing tumor had several symptoms each. So, bloody discharge was in 2, which amounted to 40%, breast enlargement was in 3 (60%), an increase in the uterus was detected on ultrasound in 2, and pubic hair growth was in only 1, which corresponds to 40% and 20%.(Diagram 3).

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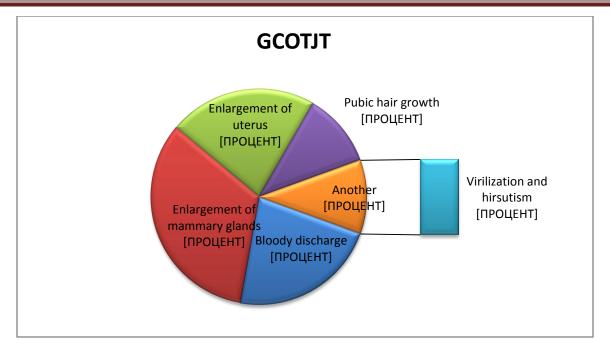


Diagram 3.

Complaints not related to hormone production of GCTO:

TABLE 5

	GCTOAT(n = 29)		GCTOJT( n=5 )	
Symptoms	abs	%	abs	%
Stomachache	15	51,7%	3	60%
Abdominal enlargement	14	48,3%	3	60%
General weakness	2	6,9%	-	-

From the Table 5, it can be seen that almost half of all women with GCTOAT complained of abdominal pain, more precisely 15, which corresponds to 51.7% and 3 girls with GCTOJT, which is more than among adults and is 60%. Almost a similar picture with a complaint of increase in the abdomen. 14 women with GCTOAT complained of an increase in the abdomen, which amounted to 48.3, and 3 girls with GCTOJT, which amounted to 60% and it turned out to be more than the indicator of this complaint in adults. Only 2 women over 55 years of age complained of weakness.

#### CONCLUSIONS

Most GCOTAT are observed in peri - and postmenopausal women (40-60 years), and GCOTJT occurs in childhood (up to 10 years). Almost all (except 1) patients with GCOT had dyshormonal disorders. In both cases, there were symptoms of hypoestrogenic. GCOTJT is more often detected in the initial stage than GCOTAT. And also the current of GCOTJT is more favorable than GCOTAT. GCOTAT is characterized by late relapses, while GCOTJT is characterized by early relapses. But relapses of GCOTJT occur more rapidly than relapses of GCOTAT.

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