



# Clinical and Laboratory Features of the Combined Course of Rheumatoid Arthritis and Thyroid Disease

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## KEYWORDS

Rheumatoid arthritis,  
thyroid gland,  
autoimmune  
thyroiditis,  
hypothyroidism.

## ANNOTATION

Rheumatoid arthritis When thyroid disease is added to patients, the course of the disease changes in its own way. At the same time, the state of hormonal systems, their relationship with RA has been considered, but in this field to date, the exact information has not been systematized. Therefore, a serious clarification is required in this area.

## INTRODUCTION

Today's in the day bone and joint system pathologies common of the population all diseases between in the world the third place occupies. Of them the most wide spread rheumatoid arthritis (RA) and osteoarthritis (OA) diseases. The world health storage organization (WHO). according to "... rheumatoid arthritis with whole the world 1-2% of the population is infected with the disease RA in the first 5 years with hurt from 40% of patients more joints serious damage because of disabled being. It remains while their life quality significant level worsens ...». To information with RA than hurt in patients goiter, hypothyroidism, chronic kidney over diaper deficiency and another endocrine glands of pathology often manifestation to be determined. QB hormones (triiodothyronine - T3, thyroxine - T4) bone both resorption and synthesis of tissues strengthens, connects in tissues glycosaminoglycans and proteoglycans work release activates. Hormones of the amount increase osteoclasts the number and activity increase because of bone of metabolism to accelerate take comes also in the blood bone formation of markers increase osteoblastic function because of the increase proof gives [1,2] QB hormones lack of synovial in membranes adenylate cyclase activity increasing fibroblasts by hyaluronic acid acid work release strengthens it while in the joints synovial of liquid to accumulate take will come and synovitis clinical appearance cause releases [7]. with RA hurt patients QB pathology development inclination being, this this of diseases common immunological

mechanisms with explained. In general when, with RA hurt of QB pathology in patients spread by 28% enough. Rheumatic of diseases appear to be and by force to go endocrine diseases important role plays. Most of the time endocrine of the system violation binder tissue of diseases development for background being service does. With that together, neuroendocrine of the situation change rheumatic of diseases getting stronger to go reason will be [7,8]

Rheumatic in diseases, in particular, rheumatoid in arthritis thyroid get rid of pathology between the most a lot occurring from diseases one this autoimmune is thyroiditis. The consequence hypothyroidism passing autoimmune thyroiditis is higher in RA clinical and laboratory pointers activity effect shows. There is to information according to autoimmune thyroiditis disease rheumatoid in arthritis common to the population than three even a lot occurs. [8]

At the same time, the state of hormonal systems, although their relationship with RA has been considered, in this field to date, the exact information has not been systematized. Therefore, a serious clarification is required in this area. This is especially true of the QB hormonal system, which is a glandular substance in exchange and is undoubtedly involved in the regulation of immune responses. However, today there are many unsolved questions in the problem of correlation between RA and QB status. Solving these problems is the responsibility of rheumatologists and endocrinologists the role of dysfunction in their RA prognostic, pathogenetic significance, as well as QB in



this disease expands their understanding of approaches to rational treatment of dysfunction. Studying the role of antibodies and their effect on thyroid function in patients with RA is one of the current issues. remains \_ [6,7]

**The aim of the study** is to improve the early and differential diagnosis of the disease as a result of the analysis of clinical and laboratory indicators in patients with RA thyroid disease.

**Materials and methods of research** : In order to carry out the investigation, 75 patients with RA who came to see a rheumatologist at the cardiorheumatology department of the Samarkand City Medical Association were examined. Patients age 27-65, average age 42 years. with RA illness duration 5-12 years. Patients two to the group divided. First group RA thyroid in the gland unchanged has been sick, the second in the group patients rheumatoid arthritis hypothyroidism with. To check received in patients laboratory diagnostic on purpose subordinates conducted : clinical review, general blood analytical, general urine arthritis, rheumatism analysis, cycle citrulline to the peptide against antibody (SSPQA), joint X-ray, thyroid ultrasound examination (UTT), hormonal examination (TTG, T4( sv ),) antibodies TPO, vitD, densitometry. Blood in serum hormones quantity immunoenzyme

method with " Human ", ( Germany ) test system using checked. Take it went from inspections received data again working with Microsoft Excel 2007 on a Pentium IV personal computer in the program done increased \_

**Received results analytical** Research results that's it showed that the disease activity level depending on low activity level is 12.5 %, average activity level 45%, higher activity rate in 42.5% of patients met \_ Illness to pass looking the following revealed : gradually development course 67.5 %, fast development in 32.5% of patients observed. In the patient conducted X-ray checks 1-2 stages -65%, 3-4 stages and in 35% of patients was determined. 75 people 29 of the patients (39%) have thyroid in the UTT examination of the gland member in the structure changes was determined. Including \_ thyroid hyperplasia 55%, (16), nodular goitre - 24% (7 cases), thyroid gland atrophy was observed in 21% (6 cases). Received all from patients blood serum TTG, free T3 and concentration of free T4, antibody TPO was determined. To changes according to patients into 2 groups separated. RA thyroid to 1 group in the gland unchanged has been patients 64 (85 %) patients divided into 2 groups rheumatoid arthritis thyroid changes \_ 11 (15%) patients with entered. of hypothyroidism main reasons one this autoimmune thyroiditis is considered

**Table 1. Functional thyroid \_ to the situation depends without rheumatoid arthritis with late in patients laboratory indicators .**

Indicator	1 group. RA thyroid gland is unchanged	2 groups. RA hypothyroidism
TTG, mME/l (N 0.3-4.5 IU / ml )	2.2±0.2	6.6±1.3*
T3, ng / ml (2-4.2 pg /ml)	2.3±0.2	0.9±0.06*
T4, ng / ml (8.9-17.2 pg/ml)	12.4 ±2.7	4.5±1.2*
AT-TPO 30mEd/ ml from less	28±2.5	85±15
EXACTLY mm / s	30±5	45±10
Rheumatism factor 0-14ME\ml	20 ±6	32 ±6
SSPQA is positive > 10 Uml negative <10 Uml	30 ±5	45 ±5
C is reactive protein 0-6 mg\l	12 ±4	18 ±4

Note .\*  $r < 0.05$  .

The results of our investigation showed that in the second group of patients with rheumatoid arthritis with

hypothyroidism, compared to the group without thyroid pathology, ECHT, the number of swollen joints, and the



course of the disease had higher clinical and laboratory activity. It's done.

According to the results of the examination, the second group of patients showed more systemic changes in

rheumatoid arthritis than the first group of patients (table 2).

**Table 2. Thyroid activity \_ depends rheumatoid arthritis in diseases system changes .**

Indicator	1 group. RA thyroid gland is unchanged	2 groups. RA hypothyroidism
Myocardial diodystrophy	18%	32%
Reynaud phenomenon	7%	15%
Nephrite	-	2%
Anemia	12%	38%
Heart ischemic disease	47%	59%

It's together by joining coming diseases , severe premorbid background creating the patient the situation more strengthens

Most first of all Osteoporosis (OP) process in the lumbar vertebrae spreads . In our patients OP

determination in order to waist area computer Tomography and x-ray densitometry were performed . Received results in table 3 given .

**RA with sick in patients waist vertebrae x-ray densitometry results (VL1-VL5 data based on**

Indicators	1 group	Group 2
35-45 young	160.2±6.0	150.7±5.8
46-55 young	110.1±4.5	105.3±5.0
56-60 young	102.8±3.5	100.2±4.5

from the table apparently \_ \_ apparently , both group in patients too OP presence confirmed ( bone of fabric \_ density to age received normal from indicators \_ low ). QB disease addition \_ \_ with OP process getting stronger goes \_ This o ` z in turn of the disease early disability reason will be \_ \_

## CONCLUSION :

As a result of the examination, it was found that the level of hypothyroidism and the detection of antibodies to TPO in patients with RA is high. Rheumatoid arthritis patients with hypothyroidism have been found to have a higher number of ECHT, swollen joints, and higher clinical and laboratory activity than patients without thyroid pathology .

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