

Introduction. Sarcopenia is a muscle disease, which affect the muscle mass, strength and the physical performance at the older patients. Ultrasound is a new research and accurate technique for measure the muscle mass and quantity. The use of ultrasound was recently approved for diagnosis of sarcopenia.

Aim of the study. The aim of this study is to evaluate intra and inter-variability for ultrasonographic measured areas of biceps brachii (BB), rectus femoris (RF) and the diaphragm (DF) end- expiratory and maximum-inspiratory.

Materials and methods. The study included 17 patients with autoimmune disease of rheumatology department of County Hospital of Targu Mures, Romania. They were ultrasonographic evaluated for a 5-day period (day 1 and day 5) on the biceps brachii, rectus femoris and diaphragm DF (end- expiratory and maximum inspiratory) muscle to identify the intra- inter-variability between the two operators. The study is a prospective, pure observational, non-interventional and the statistical analysis was perform with Microsoft Office Excel package, GraphPad Prism 6 and SPSS. Intraclass correlation coefficient (ICC) was considered statistically significant if $ICC > 0,7$.

Results. ICC proves good inter-observer variability (P&W2009) at the following levels: BB right assessment 1 and 2 (0,755/0,847 $p < 0,0001$), BB left assessment 1 and 2 (0,8/0,818 $p < 0,0001$), RF right assessment 1 and 2 (0,858/0,927 $p < 0,0001$), RF left assessment 1 and 2 (0,89/0,77 $p < 0,0001$). Poor results were found on the diaphragm investigation: DF end-expiratory evaluation 1 and 2 (0,42/0,65 $p < 0,0001$), DF maximum inspiratory evaluation 1 and 2 (0,32/0,608 $p < 0,0001$). Regarding the intra-reliability we obtain good statistically significant results on the level of BB right 0,86, RF right 0,78 and RF left 0,78.

Conclusions. In conclusion biceps brachii and rectus femoris ultrasound showed a good inter-intra variability and the results revealed a ultrasonographic skill improvement from day 1 to day 5.

Key words: Sarcopenia, ultrasonographic, Intraclass correlation coefficient

173. PARASITES AND MUSCULOSKELETAL SYSTEM

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Introduction. Musculoskeletal impairment in parasitic infections are rare diseases more found in tropical countries. With the migration and seasonal travel of the population, many diseases considered exotic are becoming frequent in our country. In Republic of Moldova, musculoskeletal disorders have been observed in infections caused by *Toxocara canis*, *Giardia lamblia* and *Echinococcus granulosus*. Although a large number of clinical cases of locomotor system involvement in parasitic infections are described in the literature, systematic researches are lacking in this field.

Aim of the study. To analyse particularities of musculoskeletal impairment in parasitic infections.

Materials and methods. We included in our study 40 patients with musculoskeletal disorders who were diagnosed positively with different parasites (*toxocara canis* (18 subjects), *toxocara cati* (4), *echinococcus granulosus* (10), *giardia intestinalis* (4), *ascaris lumbricoides* (2) and 2

patients *ascaris lumbricoides* (associated with *Toxocara canis*). The study included 19 men (47.5%) and 21 women (52.5%). The age of the patients varies from 18 to 63, the average age being 39 years. Patients were investigated clinically and paraclinically for the exclusion of other causes of musculoskeletal impairment and for the evaluation of pathological changes.

Results. In the group of analyzed subjects 27 patients (67,5%) presented diffuse myalgia; 26 patients (65%)-localized muscle pain; 36 patients (90%)—joint pain of which 19,4%-monoarthritis, 55,6%-oligoarthritis, 25%-polyarthritis; 14 patients (35%) had swollen joints; 8 patients (20%)-reduction of joint mobility; 20 patients (50%) experienced bone pain and 95% (38 patients) had marked fatigue. From the monitored laboratory tests we mention: Level of total immunoglobulin E was greater than 240 ng/ml in 29 (72,5%) of subjects; total protein C was greater than 5 mg/l in 32 (80%); ESR was increased in 24 (60%) patients; eosinophils with values greater than 5% were in 38 (90%) subjects.

Conclusions. The pathology of the locomotor system is found in parasitosis having as substrate inflammatory, immune and allergic changes with various sites of musculoskeletal pathology. In cases of musculoskeletal impairment of non-elucidated etiology, parasitic investigation should be considered for prompt decision of therapeutic management.

Key words: Musculoskeletal Parasites

174. THE ROLE OF INFECTION IN THE DEVELOPMENT OF RHEUMATIC DISEASES

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Introduction. The etiology of rheumatic diseases is not absolutely clear and a lot of genetic and environmental factors are considered to be involved. The triggering factors for the development of rheumatoid diseases are considered to be: genetic predisposition, injuries of the musculoskeletal system, different pathogens, metabolic diseases, bad habits, etc.

Aim of the study. In this work, “The Role of Infections in the Development of Rheumatic Diseases,” a case-control study investigated the presence of infection in a particular category of rheumatic diseases.

Materials and methods. Thus, of the 500 studied cases, the infection was present in 347 cases, which is 69.4%. The data for the statistical study were taken from the patient history of the rheumatology department for January-October 2017.

Results. The distribution among the studied cases is the next one: ankylosing spondylitis - 59 cases (11.8%), the presence of infection in 29 cases (8.35%), reactive arthritis - 70 cases (14%), the presence of infection - 57 (16.45%), seronegative undifferentiated arthritis - 46 cases (9.2%) with signs of infection (6.9%), psoriatic arthritis 118 cases (23.6%) with infection - 98 cases (28.2%), rheumatoid arthritis 137 (27, 4%) the presence of infection in 101 (29.2%) cases, systemic lupus erythematosus 18 cases (3.6%), the presence of infection in 13 cases (3.74%), gout 17 cases (3.4%), with infection 9 cases (2.59%), undifferentiated connective tissue diseases 6 counts (2.6%) with infection 4 cases (1.2%), scleroderma 13 cases (2.6%) with infection 7 cases (2%), Vasculitis 10 cases (2%) of which 5 cases (1.45 %) with infection. The most common signs of the disease are rheumatoid factors - in 123 cases 35.4%, CRH-150 cases (43.2%), ASLO-88 cases (25.3%), Anti Hb core sum-83 cases (23.9 %), frequent