



WEB OF SCIENCE



## ANATOMOPATHOLOGICAL ASPECTS IN EXPERIMENTALLY INDUCED CHRONIC ARTHRITIS



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### Abstract

**Introduction:** The purpose of this study was to provide an experimental model of chronic arthritis in small experimental animals (Wistar female rats) and to evaluate the efficacy of Leflunomide treatment on the evolution of a chronic inflammatory arthritic disease.

### Material and method:

Taking into account the evolution of various chronic inflammatory diseases among young women or elderly, we have formed two groups of female Wistar rats: young and adults - aged between 1.5 months and 4.5 months. Arthritis was induced by injecting 1% carrageenan solution in tibio-femoral joint of experimental animals, 3 times a week for 4 weeks.

Leflunomide was administered at a dose of 20 mg / kg by gavage once at 2 days, for 8 weeks.

### Results:

After 8 weeks of treatment, fragments were taken from the tibio-femoral joint, liver, myocardium - which were fixed in formalin solution and afterwards embedded in paraffin. The pieces of taken joints have been previously decalcified with trichloroacetic acid solution. The sections were examined under the electron microscope Olympus equipment.

### Conclusions:

The study of the obtained results led to the following conclusions:

The intensity of inflammatory events in the group of young animals was higher compared to adults.

In all experimental animals, both young and adult, arthritic lesions persisted after treatment administration.

Liver and cardiac damage was revealed which suggests the toxicity of leflunomide.

**Keywords:** arthritis, Leflunomide, carrageenan.