

## **Bibliographical record:**

KURKOVÁ, Simona. **Sonographic evaluation of sciatic nerve in individuals with radicular symptoms S1**, Charles University, 2nd Faculty of Medicine, Department of Rehabilitation and Sports Medicine, 2019, p. 99, Thesis Supervisor: Mgr. Stanislav Machač Ph.D.

## **Abstract**

The thesis deals with radicular symptomatics S1 and sonographic imaging and evaluation of sciatic nerve in individuals with unilateral radicular manifestation.

The theoretical part describes anatomy and biomechanics of nerve structures, radicular syndrome and its clinical image, diagnostics and treatment. The theory also includes the less known extraspinal causes manifesting themselves as radicular syndrome, the effects of which may be equally important in differential diagnosis. It describes classical and new possibilities of nerve imaging with emphasis on sonography and approach of new procedures such as MRI tractography.

In the practical part, the aim of the thesis is to evaluate morphological changes of sciatic nerve in patients with unilateral symptomatic S1 by sonographic imaging of the nerve during its course, from the subgluteal groove to the popliteal groove. It also examines the relationship between the pathophysiology and symptomatology of these patients, comparing whether changes in nerve size correlate with neurological findings, subjective pain assessments, and other symptoms, or their duration.

The work confirms the unilateral change of the cross-sectional area n. ischiadicus in S1 radicular symptomatology in terms of nerve edema, especially at the subgluteal level of nerve progression.