

Abstract

The presented dissertation primarily investigates new possibilities of targeted reconstruction of the lower branch of the suprascapular nerve for the infraspinatus muscle in patients with palsy of external rotation of the arm. It arises either on the basis of the brachial plexus palsy or during fractures of the scapula.

The aim of the first part of the thesis was to use a systematic review of the literature and a subsequent meta-analysis to define data on the epidemiology and etiopathogenesis of severe injuries to the brachial plexus, which are indicated for surgical treatment. The second part describes two experimental studies on the reconstruction of the lower branch of the suprascapular nerve using the spinal accessory and lower subscapular nerves.

Determining the values of the frequency of different types of brachial plexus lesions and their dependence on gender and causal mechanisms can be used as a basic reference when informing patients and the professional public about these types of injuries. In the experiment, it was proven that both methods of the suprascapular nerve reconstruction can be used in the vast majority of cadavers. They are thus potentially usable in clinical practice depending on the type of injury.