

Median to Ulnar Nerve Anastomosis: A Review of the Literature

M. Piagkou¹, S. Tasigiorgos², D. Lappas², P. Troizos-Papavassiliou², G. Piagkos², P. Skandalakis², T. Demesticha³

¹Department of Anatomy, Medical School, University of Athens (UOA), Greece

²Department of Anatomy, Medical School, UOA, Greece

³Anaesthesiology Department, Metropolitan Hospital, Athens, Greece

Abstract

Median to Ulnar nerve anastomosis in the forearm has been shown to be of clinical significance leading to “anomalous” innervation and is correlated with misdiagnosis during the assessment of nerve lesions, injuries and Carpal Tunnel Syndrome (CTS). In 1763, Martin first described the anastomosis and Gruber next mentioning it, in 1870 thus referred to as Martin – Gruber anastomosis. Despite its long history, its nature remains unclear. Many anatomical, electrophysiological, histological and genetic studies have been published, reporting the anastomosis’ frequency, citing its clinical importance and classifying it into various classes and types. Diagnosis is made mostly with electrophysiological studies whereby researchers have cited certain clues taking into consideration the asymptomatic nature of the anastomosis. The current literature on median to ulnar nerve anastomosis is reviewed, highlighting its frequency and clinical significance making an excellent tool for correct diagnosis in many clinicians.

Key words: median nerve; ulnar nerve; nerve anastomosis

Corresponding author: Maria N. Piagkou, Lecturer

Department of Anatomy, University of Athens, School of Medicine,
Faculty of Health Sciences

9 Kontoyiannaki Street, Athens GR 11526, Greece

Tel.: +30-210-6924507, Fax: +30-210-7462398

E-mail: mapian@med.uoa.gr