Abstract:

Ischemic remote conditioning is an experimental treatment method serving for the protection of heart (or other organs) against ischemia-reperfusion injury. In comparison with the regular conditioning, where the process is initiated by sequence of short ischémias performed directly on the target organ, protective function of the remote conditioning is activated via sequence of short ischémias and following reperfusions executed on a remote tissue – usually by strangulating an upper limb. Transmission of the signal from the remote organ to the target organ is mediated via neuronal and humoral routes. Method can be applied as pre-conditioning, before the presumed long-term ischemia, and per-conditioning, during long-term ischemia, or as post-conditioning after a long-term ischemia. It is quite safe, non-invasive, inexpensive and easily feasible method. This thesis describes the so far identified molecular mechanisms involved in the development of cardioprotection mediated by remote conditioning.