

Abstract

The early postnatal period plays important role in heart and cardiovascular system development. The substantial increase of hemodynamic load after birth results in rapid growth and differentiation of cardiac tissue. Therefore, neonatal myocardium is characterized by specific reaction to the pathological stimuli. In adult heart, the pressure overload results to cardiac hypertrophy development. However, for the short period after the birth, the cardiac tissue possesses higher proliferative activity which could be further increased as reaction to the pressure overload. The project aims to outline current knowledge about the effect of pressure overload on developing myocardium and focused to the specific changes of heart and cardiovascular system.

Key words: Neonatal myocardium, Fibrosis, Heart remodeling, Hypertrophic myocardium, Gap junction