



CAROTID RESISTIVE INDEX IN PATIENTS WITH ARTERIAL HYPERTENSION

Cabac-Pogorevici Irina, Mihalache Georgeta, Jitari Inessa, Revenco Valeriu

Universitatea de Stat de Medicină și Farmacie „Nicolae Testemițanu”, Disciplina de cardiologie

Introduction

The resistive index is a parameter that reflects the goal of vascular resistance of the arterial vascular bed.

Keywords: resistive index, hypertension

Purpose

The aim of our study is to evaluate the correlation of indices of resistance determined in carotid arteries with hypertension (HTN) mediated organ damage (HMOD).

Results

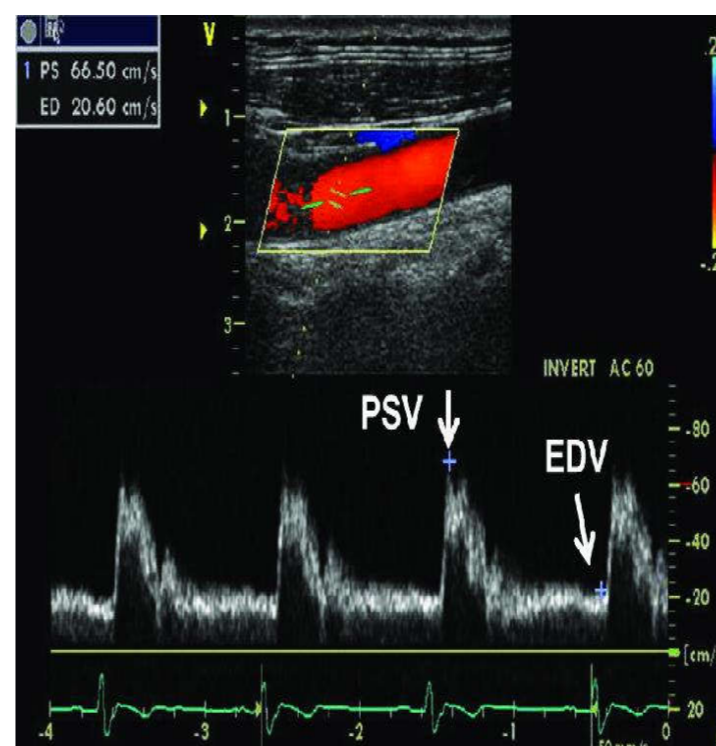
Mean values for CRI were 0.81 ± 0.07 , IMT was 1.18 ± 0.28 , mean 24-hour systolic blood pressure (SBP) was $142.2 \pm 15,8$ mmHg, mean 24-hour diastolic blood pressure (DBP) was 77.1 ± 22.4 mmHg. The mean pulse pressure (PP) was 59.10 ± 22.90 mmHg. The mean 24-hour heart rate (HR) was 75.14 ± 26.86 beats / minute. CRI was positively correlated with 24 hours SBP ($r = 0.44$), 24 hours DBP ($r = 0.15$), LVMI ($r = 0.127$), RWT ($r = 0.311$), carotid IM ($r = 0.672$).) and a negative correlation found between IRC and FCC ($r = -0.389$). In the multiple regression analysis, an important interconnection between CRI and IMT was found, as well as the fact that the mean 24 hours SBP, LVMI, RWT and carotid IMT were the main determinants of CRI

Material and methods

The study included 84 patients (40 women and 44 men, mean age 42.26 ± 11.2 years) with grade II-III HTN. Physical examination was performed, biochemical tests, echocardiography and carotid Doppler ultrasonography to assess the resistive index (CRI) of both common carotid arteries (CCA) and intima-media thickness (IMT).

Conclusions

The results of the study highlight the interconnection between systemic atherosclerotic burden, HMOD and carotid circulation, suggesting that hemodynamic factors significantly influence systemic arterial patterns.



Parameter	Mean value
24h SBP	$142.2 \pm 15,8$ mmHg
24h DBP	77.1 ± 22.4 mmHg
Mean PP	59.10 ± 22.90 mmHg
24h HR	75.14 ± 26.86 beats / min