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Conference Abstract

P.28 Comparison of Regional vs Local Arterial Parameters Using New US Technology

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ABSTRACT

Environment: It has been described that muscular arteries behaviour is different from aorta, and regional parameters like IMT, atherosclerotic plaques burden, PWV-c and endothelial function are related with age and risk factors and are powerful prognostic markers but it is not the case of local parameters like wall shear stress (WSS), local PWV or beta index in muscular arteries like common carotid artery, only just recently available in the clinical practice.

Objective: To analyze the relationship of regional and local arterial parameters with age and its potential use in the clinical practice.

Methods: We evaluated 100 consecutive patients from April 2019 to February 2020 with a Resona 7 (Mindray) US device with tools to measure IMT, atherosclerotic load, PWV and endothelial function and by means of VFlow Doppler, an innovative multivectorial Doppler technology, we evaluated WSS and with radiofrequency edge detectors, stiffness parameters like PWV and beta index.

Results: IMT remodelling, plaques burden, PWV correlated tightly with age and endothelial function did but inverserly (regression $p > 0.05$). Local carotid parameters like wall shear stress, PWV and beta index were grouped within a range, independently of age. (regression p NS).

Conclusion: The evaluation of local parameters has been proposed as markers of arterial disease and they are independent of age which makes easier to detect abnormal values out o frange, early markers of vascular disease, even before atherosclerosis is present. WSS is used for the first time in the current clinical practice.

REFERENCE

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