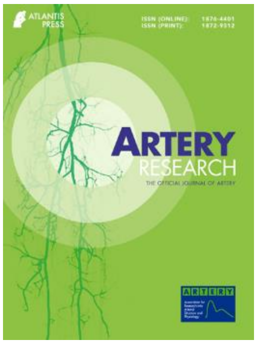

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6.2: IMPACT OF DIABETES ON ARTERIAL STIFFNESS

Rogerio Toshiro Passos Okawa, Jorge Juarez Vieira Teixeira, Alex Cardoso Perez, Eigi Wilton de Souza, Giovanna Chiqueto Duarte, Guilherme Norio Hayakawa, Lorena Lima Gargaro, Marina Franciscon Gomes da Cruz, Michel Lima Moro Alves, Milene Cripa Pizatto de

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6.1
PERIPHERAL ARTERY DISEASE AND CENTRAL HEMODYNAMIC MODIFICATION

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Peripheral arterial disease (PAD) affects the hemodynamics of the lower limbs[1] and is associated with increased cardiovascular risk and mortality[2]. The aim of this study was to evaluate central hemodynamics and to test the relationships between lower ankle-pressure index (ABI) and Augmentation index (Aix)[3,4].In 242 PAD patients (mean age 67±9.8years),Augmentation index (Aix) carotid-femoral pulse wave velocity (c-fPWV), pulse pressure amplification (PPA) aortic pulse pressure (aPP) and subendocardial viability ratio (SEVR) weremeasured using applanation tonometry[5,6].The ABI values were obtained using an 8-mHz Doppler probe[7].c-fPWVwas similar (0.164) in both sexes, AIx was higher ($p < .0001$), aPPwas marginally higher ($p = 0.062$) PPA and SEVR were lower ($p = 0.013$), ($p < .0001$) in women with PAD In the multiple regression model Aix was associated with MAP ($p < .0001$), age ($p = 0.0003$), smoking history ($p = 0.013$), cfPWV ($p = 0.016$) diabetes ($p = 0.039$) and female sex ($p = 0.050$). In this large PAD populationAix is increased in women with PAD but is not associated with a lower ABI. Furthermore, it remains uncertain whether Aix in women with PAD provides more information concerning the prognosis of these high-risk patients.

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6.2
IMPACT OF DIABETES ON ARTERIAL STIFFNESS

Rogerio Toshiro Passos Okawa, Jorge Juarez Vieira Teixeira, Alex Cardoso Perez, Eigi Wilton de Souza, Giovanna Chiqueto Duarte, Guilherme Norio Hayakawa, Lorena Lima Gargaro, Marina Franciscon Gomes da Cruz, Michel Lima Moro Alves, Milene Cripa Pizatto de Araujo, Patrick Sadao Nishikawa, Rafaela Pelisson Regla, Rafael Campos do Nascimento
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Objectives/Background: The purpose of our study was to examine the impact of diabetes on arterial stiffness.
A systematic review, published by Cecelja and Chowienczyk (1), describes that pulse wave velocity (PWV), is highly predictive of cardiovascular events, and PWV is associated with age and blood-pressure, but other pressure-independent risk factors including: dyslipidemia, smoking, diabetes, obesity remain inconsistent in many studies.
Methods: We included 796 patients, 398 of whom had diabetes. Patients were separated according to age, and we used the normal values for PWV described by Boutouyrie et al (2) .We analyzed time of disease, diabetes control, and their impact on PWV.
A Mobil- o -Graph device was used to analyze the PWV, and a Stata 9.0 software was used for the statistics analysis.
Results: We found that diabetes is associated with an increase in PWV (OR: 1.6 $p<0.01$) and the diabetes control also had influence in the PWV increase, which means that an glycated hemoglobin above 7.0 % had an OR: 2.4, $p< 0{,}001$.
When we analysed the time of diabetes diagnosis, the longer duration of disease (> 120 months) had thirty- eight times more risk to increase the PWV, and those that had been diagnosed between 61 to 119 months had approximately three times more risk to increase the PWV.
Conclusions: In our study we found that diabetes had increased the pulse wave velocity.
Diabetes control and duration of disease also had impact on arterial stiffness.

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6.3
ARTERIAL STIFFNESS IS ASSOCIATED WITH LOW-DENSITY NON-CALCIFIED CORONARY PLAQUES IN PATIENTS WITH TYPE 2 DIABETES AND HEALTHY CONTROLS

Kristian L. Funck [1], Esben Laugesen [2], Kristian Oevrehus [5], Jesper M. Jensen [3], Bjarne L. Noergaard [3], Damini Dey [4], Troels K. Hansen [1], Per L. Poulsen [1]