P83: A PILOT STUDY TO ASSESS PEAK SYSTOLIC VELOCITY AS A POSSIBLE MARKER OF ATHEROSCLEROTIC BURDEN USING ULTRASOUND

Carola Koenig, Mark Atherton, Marco Cavazzuti, Sudarshan Ramachandran, Corinna Gomm, Richard Strange, Ian Halliday, Torsten Schenkel

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Results: 5 female SCAD patients and 9 healthy controls (C) were enrolled (age 45 ± 9 vs 45 ± 13 years, p = 0.95; BMI 21 ± 3 vs 23 ± kg/m², p = 0.22; mean BP 77/5 ± 10 mmHg, p = 0.053). 2nd interface peak was reduced in the SCAD group (97 ± 29 130 ± 19, p = 0.04), whereas RMS/E/ mean was increased (1.89 ± 0.68 vs 0.97 ± 0.30, p = 0.02). Similar values were found for the 1st interface. IMT (0.165 ± 0.031 vs 0.125 ± 0.022 mm, p = 0.03), but not AT (0.095 ± 0.020 vs 0.081 ± 0.020 mm, p = 0.20) and IMAT (0.260 ± 0.049 vs 0.206 ± 0.030 mm, p = 0.053), was significantly higher in SCAD.

Radial internal diameter and wall/lumen ratio were similar: conversely WCSA was increased in SCAD (1.69 ± 0.48 vs 1.17 ± 0.37 mm², p = 0.02).

Conclusions: Radial arteries of SCAD patients were characterized by increased wall thickness. Furthermore, the 2nd echogenic layer exhibited loss of echogenicity and inhomogeneity, features similar to FMD patients. Reduced in the SCAD group (97 ± 29 130 ± 19, p = 0.04), whereas RMS/E/ mean was increased (1.89 ± 0.68 vs 0.97 ± 0.30, p = 0.02). Similar values were found for the 1st interface. IMT (0.165 ± 0.031 vs 0.125 ± 0.022 mm, p = 0.03), but not AT (0.095 ± 0.020 vs 0.081 ± 0.020 mm, p = 0.20) and IMAT (0.260 ± 0.049 vs 0.206 ± 0.030 mm, p = 0.053), was significantly higher in SCAD.

High-frame rate vector flow imaging: relationship between carotid bifurcation geometry and flow patterns

A. Alfredo Goddi 1, L. Luca Alani 1, Y. Yigang Du 2, X. Xujin He 2, Y. Yingying Shen 1, L. Lei Zhu 2

1 Centro Medico SME — Diagnostica per Immagini (SME Medical Center — Diagnostic Imaging), Varese, Italy
2 Shenzhen Mindray Bio-Medical Electronics Co., Ltd., Shenzhen, China

Background: The laminar flow movement in straight arteries is affected by anatomical factors such as bifurcation, lumen diameter changes or plaques.