plus secondary endpoints occurred in 6 patients (24%) in the celiprolol group and in 17 patient (61%) in the control group (hazard ratio, 0.31; 95% CI, 0.14 to 0.71; P = 0.0097).

Conclusions: Celiprolol effectively reduced both vascular complications and organic ruptures in vEDS patients.

3.4 A PRESSURE-INDEPENDENT ARTERIAL REMODELLING AND AORTA DILATATION IN TREATED PATIENTS WITH FABRY DISEASE

C. Collin 1, M. Bensalah 2, H. Beausser 1, D. P. Germain 3, E. Bozec 1, E. Moussseaux 2, S. Laurent 1, P. Boutouyrie 1.
1Hôpital Européen Georges Pompidou and Inserm U970 - PARCC, Paris, France
2Hôpital Européen Georges Pompidou, Paris, France
3Hôpital Raymond Poincaré, Garches, France

Purpose: Fabry disease is a deficiency of lysosomal enzyme a-galactosidase. A leading to accumulation of glycosphingolipids in cardiac and vascular tissues. After long-term enzyme replacement treatment, we described a continuous vascular hypertrophy whereas the aortic stiffness was paradoxically decreasing. Preliminary results reported aorta dilatation in treated patients. The objective of this study was to determine the prevalence of aortic dilatation, and the relationship between aorta dilatation, aortic stiffness and arterial remodeling in treated Fabry patients.

Methods: Case-control study in 34 Fabry males patients (38 ±12 yrs) receiving enzyme infusions every other week (3.5 ± 0.53, P < 0.0001 respectively; and with both age and CPP in multivariate analysis (R = 0.51 ± 0.80 m/s versus 0.11 ± 0.48 m/s, respectively; P = 0.001). Aix and cIMT did not change in any of the groups. In the treatment group, change in aPWV correlated with change in Calprotectin (r = 0.36, P = 0.04).

Conclusion: These findings indicate that long-term anti-TNF-α therapy improves aortic stiffness in patients with inflammatory arthropathies, and that the improvement is correlated with reduction in the proinflammatory protein Calprotectin.

3.6 OSTEOPROTEGERIN IS ASSOCIATED INDEPENDENTLY WITH AORTIC STIFFNESS IN PATIENTS WITH ATHEROESCLEROSIS AND IN HEALTHY SUBJECTS

M. Zagura 1, M. Sergejev 2, J. Lieberg 3, P. Kampus 4, A. Peetsalu 5, J. Eba 6, M. Zilmer 1, J. Kals 7.
1Department of Biochemistry, University of Tartu, Tartu, Estonia
2Department of Cardiology, University of Tartu, Tartu, Estonia
3Department of Surgery, University of Tartu, Tartu, Estonia
4Department of Cardiology, University of Tartu, Tartu, Estonia
5Department of Surgery, University of Tartu, Tartu, Estonia
6Department of Cardiology, University of Tartu, Tartu, Estonia
7Department of Biochemistry, University of Tartu, Tartu, Estonia

Background: Arterial stiffening is an independent predictor for cardiovascular mortality. Preliminary studies have shown that arterial calcification may have impact on increased vascular stiffness. However, little is known about the role of calcification inhibitor osteoprotegerin (OPG) as an independent predictor of arterial stiffness in patients with peripheral arterial disease (PAD) and in healthy subjects.

Aim: To evaluate the association between OPG level and arterial stiffness parameters in patients with PAD and in healthy subjects.

Materials and methods: We studied 59 males with PAD (age 63 ± 7 years) and 44 healthy subjects (age 54 ± 7 years). Serum OPG level was measured using ELISA kit. Arterial stiffness parameters, such as aortic pulse wave velocity aPWV and augmentation index, were determined by applanation tonometry using the Sphygmocor device.

Results: OPG level (5.40 ± 1.77 vs 4.19 ± 1.14 (pmol/L); p < 0.001) and aPWV (9.86 ± 2.31 vs 7.69 ± 1.66 (m/s); p < 0.001) were different for the patients and for the controls. There was linear relationship between OPG level and aPWV in patients with PAD (R = 0.51, p = 0.0001) as well as in healthy individuals (R = 0.47; p = 0.002). In multiple regression models, OPG level was independently associated with aPWV along with age and mean arterial pressure in the patient group (R² = 0.34; p = 0.034) as well as in the controls (R² = 0.49; p = 0.037).

Conclusion: The independent association between OPG level and aPWV in patients with PAD and in controls suggests that calcification inhibitor OPG may be important in the process of aortic stiffening in atherosclerosis and in healthy subjects.