Discussion.— Takayasu arteritis is a chronic, inflammatory large vessel vasculitis. Chronic inflammation is one of the most important risk factors for endothelial dysfunction and atherosclerosis.

Conclusion.— In the present study, we detected significantly decreased FMD and increased CIMT in TAK patients, suggesting a marked endothelial dysfunction. Chronic inflammation and vascular fibrosis might lead to increased atherosclerosis in TAK.

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Impairment in aortic elastic properties and mechanics of carotid artery system in patients with Takayasu’s arteritis

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Introduction.— Takayasu’s arteritis (TAK) is a chronic vasculitis of the aorta, its major branches. Impairment of the elasticity in the involved arteries is an important feature of vascular injury. We aimed to evaluate aortic, carotid artery elastic properties, to assess carotid arterial mechanics by using a novel strain imaging method, “velocity vector imaging” (VVI), in TAK, and to compare them systemic lupus erythematosus (SLE).

Methods.— We studied 31 patients with TAK (F/M, 29/2; mean age: 31.4), 18 patients with SLE (F/M, 17/1; mean age: 32.3), 20 age and sex-matched controls. All patients and controls were subjected to assessment of aortic strain, stiffness, distensibility, carotid artery stiffness index measurements. VVI analysis was performed to determine longitudinal and radial tissue motion of the common carotid arteries (CCA).

Results.— Aortic strain was significantly impaired in patients with TAK, compared with controls (5.77 ± 3.2% vs 13.91 ± 4.77%, P = 0.0001), while aortic stiffness (6.17 ± 5.1 vs 2.6 ± 1.3, P = 0.003), carotid artery stiffness index (4.97 ± 3.3 vs 1.96 ± 0.72, P = 0.0001) were markedly increased. We revealed a significant decrease in aortic distensibility TAK, when compared to controls (0.47 ± 0.3 vs 1.64 ± 0.77, P = 0.0001). We did not observe difference SLE patients and the controls, regarding aortic strain (P = 0.43), aortic stiffness (P = 0.93) and carotid artery stiffness index (P = 0.94) measurements. However, aortic distensibility was also decreased in patients with SLE, compared to controls (0.61 ± 0.3 vs 1.64 ± 0.77, P = 0.0001).

VVI measurements were obtained from off-line analysis of standard B-mode ultrasound images of the CCA (table I).

Conclusion.— TAK associated with reduced elasticity of the aorta and carotid artery system. Longitudinal and radial wall motion of CCA is impaired in patients with TA and SLE, due to the vascular inflammation. VVI is a feasible, novel strain imaging method in assessing the mechanical properties of the arterial system, in patients with chronic vascular inflammation.

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The higher response of pandemic influenza vaccination in Takayasu’s arteritis: A prospectively controlled study

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Introduction.— Despite the World Health Organization recommendation to vaccine immunocompromised patients against influenza vaccine containing the A/California/7/2009 (H1N1) virus there is no data in the literature regarding vaccine immunogenicity and safety in Takayasu’s arteritis patients (TA).

Methods.— Twenty-nine TA and 87 healthy controls were vaccinated with an unadjuvanted influenza A/California/7/2009 (H1N1) strain and evaluated pre- and 21 days post-vaccination. The immunogenicity end-points included seroprotection, seroconversion, geometric mean titres (GMT) and factor increase (FI) in GMT. Disease activity parameters