Results—When compared to controls, pts with AS had higher baseline LAD flow velocity (37 ± 10 vs. 28.8 ± 5 cm/s, \( P < 0.05 \)), similar hyperemic LAD flow velocity (84 ± 20 vs. 85 ± 21, \( P = N S \)), and consequently lower CFR (2.35 ± 0.68 vs. 3.2 ± 0.8, \( P < 0.01 \)). In pts with AS, there was a significant inverse correlation between CFR and age \( (r = -0.33) \), E/Ea (early diastolic transmitral flow velocity/early diastolic mitral tissue Doppler annular velocity), LV mass/m², NT-proBNP \( (r = -0.45) \), pulmonary artery systolic pressure (PASP), baseline LV rate-pressure product (LVPp) [(mean gradient + systolic blood pressure) \( \times \) heart rate], heart rate, and left atrial volume/m² (LAV) (all, \( P < 0.05 \)), and a significant positive correlation between CFR and LVEF, and deceleration time of E (all, \( P < 0.05 \)). The correlation between CFR and Z was of borderline significance. Furthermore, compared to asymptomatic AS pts \( (n = 10) \), symptomatic AS pts had a more severely impaired CFR \( (2.2 \pm 0.6 \text{ vs. } 2.76 \pm 0.8, P < 0.05) \), higher baseline and lower hyperemic LAD flow velocities (all, \( P < 0.05 \)), and higher NT-proBNP values \( (P < 0.01) \). In multivariate analysis, after adjusting for AS severity, NT-proBNP was the main independent predictor of CFR \( (P < 0.01) \), and among echographic variables, PASP and LVPp (all, \( P < 0.01 \)). PASP was independently predicted by age, DTE and LAV (all, \( P < 0.01 \)).

Conclusion—In patients with severe AS and preserved LVEF, there is a relatively wide range of CFR values. CFR is more severely impaired in symptomatic AS pts and is mainly determined by increased LV wall stress and workload, and diastolic dysfunction.

doi:10.1016/j.acvd.2011.03.070
_valvulopathy associated with benfluorex therapy: Results from the French multicentre registry_F
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Aim.—The aim of this study is to report clinical characteristics, consequences, echocardiographic features, and pathological findings encountered in patients suffering from valvular disease associated with benfluorex exposure in a multicentre French registry.

Methods.—Forty patients suffering from unexplained restrictive valvular disease with a previous exposition to benfluorex, a fenfluramine derivative, were identified from eight French university hospitals.

Results.—Patients were mostly women (87.5%) with a mean age of 57.9 years and high body mass index of 30.7 kg/m²; 37.5% of them presented with severe heart failure symptoms (NYHA class III and IV). Benfluorex mean daily dose was 415 ± 131 mg with total therapy duration of 72 ± 53 months. Resulting cumulative dose was 910 ± 675 g. Common echocardiographic findings were leaflets and subvalvular apparatus thickening and retraction. Aortic and mitral valve regurgitations resulting from leaflets loss of coaptation were the most frequent findings (87.5% and 82.5%) and were severe in 29 patients (72.5%). Multiple valve involvements were present in 31 cases (77.5%). Pulmonary arterial hypertension was identified in 20 cases (50%). Histopathological examination demonstrated abundant extracellular matrix encasing the leaflets without modification of valve architecture. Fifteen patients (37.5%) underwent valvular surgery.

Conclusion.—Benfluorex-related valvulopathy shares numerous characteristics with other drug-induced valvular disease. Clinical consequences may be serious with severe heart failure symptoms that may lead to surgical treatment.