

# Patterns of Medication Use in 615 Patients with Fibromuscular Dysplasia. A Report of the United States Registry for Fibromuscular Dysplasia

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**Background:** Fibromuscular dysplasia (FMD), a noninflammatory arterial disease, may lead to renovascular hypertension (HTN) and extracranial cerebrovascular (CV) disease. Little is known about medication use among patients with FMD.

**Methods:** Clinical features, presenting symptoms, vascular events and medication use were reviewed for patients in a national FMD registry (10 US sites). Logistic regression analyses were performed to investigate covariate associations and medication use. Covariates included demographic characteristics, co-morbid conditions and vascular bed involvement.

**Results:** All 615 patients (91.5% female) in the database were included in the analysis. Mean age was  $55.5 \pm 12.9$  years, 440/597 (73.7%) had HTN and 40/521 (7.7%) had a history of coronary artery disease (CAD). Renal and CV artery involvement were 382/507 (75.3%) and 366/490 (74.7%), respectively. Antiplatelet (AP) agents were administered to 260/362 (71.8%) and 286/355 (80.6%) of patients with renal or CV involvement, respectively. The factors associated with greater AP agent use were older age (OR=1.022 per year, P=0.006) and CV artery FMD; in isolation (OR=2.9, P=0.005) or with renal artery involvement (OR=2.2, P=0.029). Anti-HTN medication use differed between vascular beds (figure). Factors associated with greater anti-HTN use were older age (OR=1.02 per year, P=0.0022), history of HTN (OR=15.1, P<0.0001) and history of CAD (OR=2.5, P=0.014).

**Conclusions:** Most patients with FMD receive AP agents. The use of anti-HTN agents differs by vascular bed involvement, with very few patients with renal artery FMD requiring no anti-HTN agents, while these patients require  $\geq 3$  medications twice as often as patients with CV FMD.