

Acute Coronary Syndromes

PROGNOSIS OF SPONTANEOUS CORONARY ARTERY DISSECTION AND ASSOCIATION WITH FIBROMUSCULAR DYSPLASIA

Poster Contributions

Poster Sessions, Expo North

Saturday, March 09, 2013, 3:45 p.m.-4:30 p.m.

Session Title: Gender, Dissection, Outcomes from ACS

Abstract Category: 1. Acute Coronary Syndromes: Clinical

Presentation Number: 1170-192

Authors: *Jacqueline W. L. Saw, Andrew Starovoytov, Tara Sedlak, Donald Ricci, Christopher E. Buller, Vancouver General Hospital, Vancouver, Canada, St. Michael's Hospital, Toronto, Canada*

Background: Spontaneous coronary artery dissection (SCAD) is an infrequent cause of acute coronary syndrome (ACS), and we identified a strong association with fibromuscular dysplasia (FMD) as the potential cause for dissection. The long-term cardiovascular impact of SCAD is largely unknown.

Methods: We started registering patients with SCAD at Vancouver General Hospital (VGH) and prospectively followed them since 2001. They gave informed consent for our NACAD (non-atherosclerotic coronary artery disease) registry at VGH and have been followed annually. SCAD was diagnosed based on characteristic coronary angiography findings, or IVUS or OCT showing intramural hematoma. Screening for non-coronary FMD was routinely done for the renal, iliac and cerebrovascular arteries. Baseline, angiographic and outcome events were evaluated.

Results: We identified 80 patients with SCAD at VGH with mean follow-up of 2.6 ± 3.1 years (range 0.2 - 11 years). The average age was 52.9 ± 9.5 , and the vast majority were women (79/80). Mean BMI was 24.5 ± 5.4 , and 82.1% were Caucasian. Diabetes (3.9%) and smoking (10.0%) were infrequent risk factors, but dyslipidemia (21.1%), hypertension (32.5%) and family history of CAD (28.6%) were relatively frequent. Twenty-five % had migraines, 52.1% were post-menopausal, and 36% were on hormone replacement therapy. All patients presented with ACS: all had troponin elevation (median $4.1 \mu\text{g/l}$), and 21.3% had ST elevation. Mean ejection fraction was $58.6 \pm 7.8\%$. Only 16.7% underwent revascularization and all patients survived their hospitalization. Non-coronary FMD was present in 90.5% of patients (renal 60.5%, iliac 50.7%, cerebrovascular 46.5%). During follow-up, 1 patient died of non-cardiac cause, recurrent MI occurred in 11.9%, stroke/TIA in 3.0%, hospitalization for troponin-negative chest pain 13.6%, and subsequent revascularization 9.0%. Atypical chest pains following SCAD event was common (32.5%).

Conclusion: FMD is present in the vast majority of patients with SCAD, implicating a strong etiologic association. Long-term non-fatal cardiovascular events occur in 15% of our SCAD patients, although their survival is good.