# Is Conservative Treatment Justified in Marfan's Syndrome Patients with Non-complicated Acute Type B Aortic Dissection? Insights from the International Registry of Aortic Dissection (IRAD) 

Dan Gilon ${ }^{1}$, Reed Pyeritz ${ }^{2}$, Arturo Evangelista ${ }^{3}$, Patrick O'Gara ${ }^{4}$, Kevin Harris ${ }^{5}$, Alan Braverman ${ }^{6}$, Mark Peterson ${ }^{7}$, Matthias Voehringer ${ }^{8}$, Toru Suzuki ${ }^{9}$, Lori Conklin ${ }^{10}$, Daniel Montgomery ${ }^{11}$, Eric Isselbacher ${ }^{12}$, Christoph Nienaber ${ }^{13}$, Kim Eagle ${ }^{14}$, Amit Korach ${ }^{15}$<br>${ }^{1}$ Cardiology, Hadassah Hebrew University Medical Center, USA<br>${ }^{2}$ Medicine, University of Pennsylvania, USA<br>${ }^{3}$ Cardiology, Hospital General Universitari Vall d'Hebron, Spain<br>${ }^{4}$ Cardiology, Brigham and Women's Hospital, USA<br>${ }^{5}$ Cardiology, Minneapolis Heart Institute, USA<br>${ }^{6}$ Cardiology, Washington University, USA<br>${ }^{7}$ Cardiac Surgery, St. Michael's Hospital, Canada<br>${ }^{8}$ Cardiology, Robert Bosch Hospital, Germany<br>${ }^{9}$ Cardiovascular Medicine, The University of Tokyo, Japan<br>${ }^{10}$ Anesthesiology, University of Virginia, USA<br>${ }^{11}$ MCORRP, University of Michigan, USA<br>${ }^{12}$ Cardiology, Massachusetts General Hospital, USA<br>${ }^{13}$ Cardiology, University Hospital Rostock, Germany<br>${ }^{14}$ Medicine, University of Michigan, USA<br>${ }^{15}$ Cardiothoracic Surgery, Hadassah Hebrew University Medical Center, Israel

## Introduction:

Conservative treatment is the treatment of choice in patients (pts) with non- complicated acute type B aortic dissection. This strategy was not validated in patients with Marfan's syndrome (MFS) presenting with noncomplicated acute type B aortic dissection.

## Methods:

Our study evaluated 619 initially medically managed patients with non-complicated acute type B aortic dissection enrolled in to IRAD between 1996and 2011. The patients were divided into groups based on the presence (19, 3.1\%) or absence ( $600,96.9 \%$ ) of MFS.

## Results:

The mean age was significantly lower for MFS pts ( $40.9 \pm 9.4$ years vs $64.8 \pm 13.5$ years $[\mathrm{p}<0.001]$. Significantly more pts with non MFS had history of hypertension ( $80 \%$ vs $22.2 \%$ [ $p<0.001$ ]). Pts with MFS had significantly higher incidence of prior aortic dissection ( $64.7 \%$ vs $6.4 \%$ [ $p<0.001]$ ), and family history of aortic disease ( $70 \%$ vs $10.8 \%$ [ $\mathrm{p}<0.001$ ]). On presentation, significantly higher number of patients with non MFS presented with hypertension ( $69.9 \%$ vs $36.8 \%$ [ $p<0.008]$ ). Abdominal vessels involvement was more frequent in pts with MFS ( $47.4 \%$ vs $22.7 \%$ [ $\mathrm{p}=0.023]$ ). During the hospitalization, conversion from conservative treatment to either surgery or stent grafting was required in 4 patients with MFS (21.1\%) and $29(4.8 \%)$ of non MFS patients [p<0.015]. None of the patients with MFS died during the index hospitalization, nor had new neurological, or visceral ischemia.
Kaplan-Meyer survival curve showed no significant difference in survival between the two groups from admission to five years follow-up.

## Conclusion:

Similar to patients with non MFS, conservative treatment is safe in patients with MS presenting with noncomplicated acute type B aortic dissection. The presence of dissection extension in patients MFS, warrants special in hospital attention.

