

## A Prospective Study of the Outcomes of Patients with Acute Aortic Dissection at the Philippine Heart Center

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**Background** --- This paper aims to provide a comprehensive review on the presentation, diagnostic evaluation, management and eventual outcomes of patients diagnosed to have Aortic Dissection at the Philippine Heart Center. Its specific objective is to determine the significant factors affecting the outcome of patients diagnosed with Aortic Dissection at the Philippine Heart Center, from August 2006 to August 2008.

**Methods** --- A total 144 consecutive patients presented to the emergency department of the Philippine Heart Center with suspected aortic dissection, with symptoms of acute chest pain, back pain, or abdominal pain, or a combination of any two; of these, 25 constituted the study group (8 women and 17 men; mean  $\pm$  SD age,  $57 \pm 15$  years). Dissection was confirmed in all patients, with the rest excluded if no dissection was evident either by TEE or CT or MRI.

**Results** --- Sixteen patients with dissection involving the ascending aorta were identified as type A (64%) and 9 with no affliction of the ascending aorta were identified as type B (36%) dissections. Chronic arterial hypertension was prevalent in 22 patients (88%), and Marfan syndrome was present in 3 patients (12%). The most frequently reported clinical features were chosen as study variables. Among these, chest pain was the prevalent symptom among 11(44%) of the patients. The rest of the study group presented with back pain, 8 (32%) and abdominal pain, 9(28%). Nineteen patients (76%) were normotensive on presentation, and six patients (24%) were hypotensive at the time of evaluation. On physical exam, seven patients (28%) had tachycardia, six (24%) had crackles and five (20%) of the patients had a murmur of aortic regurgitation on auscultation. One (4%) patient had vascular deficit and another one presented with neurologic deficit. Of the 25 patients included in the study group, there were 21 subjects alive and only 4 mortalities (3 male and 1 female). Using Fisher's Exact test, gender was not found to be a significant variable in determining outcomes from acute aortic dissection. The other variables of chest pain (p value=0.287), back pain (p=0.569), aortic insufficiency (p=0.166) and crackles (p=0.233) were likewise noted to be not statistically significant. Three of the mortalities (75%) had dissection involving the ascending aorta. Using the two-tail test, chest pain (p value=0.21), back pain (p=0.55) and crackles (p=0.489) were all noted to be not clinically significant in predicting outcomes of acute aortic dissection.

**Conclusions** --- Acute aortic dissection is an uncommon but life-threatening cardiovascular event. The Philippine Heart Center experience confirms that careful patient evaluation and selection plays an important role in determining outcomes in patients with acute aortic dissection. The selected variables of gender, symptoms, clinical presentation and treatment modalities used did not predict for adverse outcomes among patients with acute aortic dissection. Knowledge of significant risk factors for operative mortality can contribute to better management and a more defined. *Phil Heart Center J 2012;16:76.*