Abstract 20003: A 15-year Analysis and Descriptive Study of the Incidence, Clinical Characteristics, Management, and Outcomes of Lower Limb Ischemia in Type A and Type B Aortic Dissection Patients: Insights From the International Registry of Acute Aortic Dissection


Abstract

Background: This study assessed the incidence of lower limb ischemia as well as trends in management and outcomes while examining acute aortic dissection patients over a period of 15 years. Additionally, differences in clinical presentation, interventions performed, and mortality between patients with and without lower limb ischemia were investigated.

Methods: Lower limb ischemia (LLI) was evaluated among 3812 patients enrolled in the International Registry of Acute Aortic Dissection over a 15-year period that was separated into three 5-year intervals: 1996-2001, 2002-2007, and 2008-2012. The cohort was then divided by dissection type and presence or absence of LLI.

Results: Type A patients presenting with limb ischemia (N=280, 11.4%) were much more likely to have atherosclerosis (p=0.021) and to present with back, abdominal and leg pain versus chest pain (p<0.001 unless noted). Other symptoms of malperfusion, including ischemic spinal cord damage (p<0.001) and coma/altered consciousness (p=0.006) were more common in patients presenting with LLI. Surgery was less commonly performed in Type A LLI patients (79.3% vs 86.1%, p=0.002), a difference that did not change over time (p=0.453, trend p=0.479). Additionally, overall mortality was higher in LLI patients (37.5% vs 22.9%, p<0.001) and did not show improvement among the LLI cohort over time.

Type B patients with LLI (N=102, 7.5%) were more likely to be current smokers (p=0.028), to present febrile (p=0.022), and to have leg pain (p<0.001). As with Type A, ischemic spinal cord damage was more common in the LLI cohort (p<0.001). Patients with LLI were much more likely to be managed with endovascular therapy (19.6% vs 50.0%, p<0.001) than with medication alone (66.5% vs 29.4%, p<0.001), with endovascular repair increasing in LLI patients over time (p=0.008, trend p=0.002). Again, overall mortality was higher in the LLI cohort (24.5% vs 9.7%, p<0.001) and did not change over time.

Conclusions: Although Type B patients with LLI received more endovascular procedures in later years, overall mortality did not improve. Increased complications and higher mortality in the LLI cohort suggests a need for better monitoring and increased implementation of interventions in this population.