



Ischemic Complications of Distal Aortic Dissections: Open Surgical or Endovascular Management?

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ABSTRACT Acute aortic dissection is one of the most common catastrophic events that affects the aorta, and, even in the best of circumstances, morbidity and mortality remain high. The majority of aortic dissections involving the descending thoracic aorta can be successfully managed with medical therapy. However, even with aggressive medical therapy, the associated mortality approaches 20%, and a significant number of patients die within a year from complications related to the dissection. Operations for descending thoracic aortic dissection are reserved for patients who fail medical management and develop complications such as aneurysm formation, aortic rupture, branch vessel malperfusion, or refractory pain. Patients who require operative intervention for acute descending thoracic aortic dissections have a worse outcome, with mortality rates near 35%. Mortality is higher in patients who require operative intervention specifically for ischemic complications related to dissection. It is in this group of patients that new, less-invasive methods of endovascular treatment have been promoted with great enthusiasm. Furthermore, early success of endovascular techniques in treating ischemic complications of distal aortic dissection raises the question: Should such patients be managed with traditional open surgical operation or newer endovascular therapies? This article summarizes the anatomy and natural history of descending thoracic aortic dissection, focusing on the development of ischemic complications, comparing and contrasting the role of open surgical operation to endovascular therapy.

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