



A TURN FOR THE WORSE: COMPLICATION OF TYPE B DISSECTION

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INTRODUCTION

Aortic Dissection is a separation of the layers of the aortic wall due to an innate malfunction or inciting injury. Incidence of aortic dissection is 5-30 in 1 million. This can happen in the region of the thorax, abdomen, or both. Furthermore, it can occur before or after the branching of the great vessels. The dissection is categorized by the location of the initial injury as described in the figure below. Treatment for a Stanford Type A dissection is surgical. Treatment for a Stanford Type B dissection can be surgical, but mostly focuses on blood pressure control. Ideal blood pressure for a patient with type B dissection should be between 100 – 120 mmHg systolic in the acute phase. A systolic of less than 130 mmHg is okay in the chronic phase. However, it is important to be aware of the rate of decrease of the blood pressure. The vascular beds of the organs are used to a specific pressure and dropping that too quickly may cause some dangerous side effects .

CASE PRESENTAION

67 y/o M Presented to Trinity with complaint of chest pain. He was eating an apple and felt that it was stuck in the chest. CXR at trinity showed a widened mediastinum. Subsequent CTA showed a dissection from aortic arch to proximal renal arteries. Patient was transferred to our center for medical management of his type B dissection. Initial labs were within normal limits, except his creatine level was 1.9 mg/dl. Patient was started on a nicardipine and esmolol drip for blood pressure and heart rate control. The next few days went into slowly introducing oral blood pressure medications to titrate off the drips.

On day five of admission, patient became hypotensive requiring multiple pressors. Abdominal exam showed distention and tympany. Surgery was consulted for possible acute abdomen. Vascular was consulted for possible worsening dissection. Labs showed a worsening creatinine, elevated potassium, and elevated liver enzymes. Patient had decreased urine output and worsening mental status. He was intubated. He was taken to the operating room for an aortogram and exploratory laparotomy. The aortogram showed a stable dissection, and the exploratory laparotomy showed dusky bowel. Unfortunately, patient expired on day 15 of admission.

DISCUSSION

Type B dissection is medically managed with strict blood pressure control. However, the rate we lower the blood pressure may be crucial in patient survival. For our patient, we believe that the relative hypotension caused by lowering his blood pressure to quickly precipitated the adverse events. On the CT abdomen, we see the dissection going into the superior mesenteric artery. This dissection in the SMA further decreased the flow when the blood pressure was lowered. When lowering the blood pressure, it may be beneficial mimicking the goals of hypertensive emergency as to not create relative hypotension.



REFERENCES

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