

# **SURVIVOR OF AN INCIDENTAL, PAINLESS ACUTE TYPE A AORTIC DISSECTION WITH ASCENDING AORTA ANEURYSM IN A MORBID OBESE PATIENT: A RARE CASE REPORT**

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**Introduction:** Acute Type A aortic dissection (T(A)AD) is a life-threatening cardiovascular disease that requires an emergency surgery. Morbid obesity (Body Mass Index: BMI  $\geq 40$  kg/m<sup>2</sup>) is a recognized risk factor of poor surgical outcomes. This case report describes the diagnosis and perioperative challenges in managing T(A)AD in a morbid obese patient.

**Case presentation:** We report a case of 32 years-old chronic alcoholic Chinese male smoker, ex-methamphetamine user, morbid obese (BMI 49.2 kg/m<sup>2</sup>) with underlying uncontrolled young hypertension who presented with worsening shortness of breath for three days associated with reduced effort tolerance, orthopnea and bilateral leg swelling for two months. There was no chest pain reported prior to presentation. An echocardiography reviewed a mild to moderate aortic valve regurgitation and incidental findings of dilated ascending aorta with suspicious intimal flap. Subsequent computed tomography angiography (CTA) confirmed the diagnosis of T(A)AD with ascending aorta aneurysm. The patient underwent emergent ascending aorta replacement, hemiarch replacement, coronary artery bypass grafting and delayed sternal closure. The patient went home after one month duration of hospitalization with a challenging postoperative course.

**Discussion:** While the exact mechanism linking obesity and painless T(A)AD is not fully understood, there are case series and registry data showed that T(A)AD is more common in obese patient. According to Nationwide Inpatient Sample (NIS) database, 5.1% of patients with T(A)AD are morbidly obese, the rate of morbid obesity in T(A)AD has increase from 1.95% to 7.37% from year 2008 to 2017. A study conducted in China reported that 7.26% of aortic dissection cases had no typical pain with 48.57% of the patients had T(A)AD.

**Conclusion:** The diagnosis of T(A)AD in a morbidly obese patient can be particularly difficult due to atypical symptoms. High index of clinical suspicion, along with the accessibility of diagnostic imaging modalities is crucial to establish the diagnosis. Multidisciplinary approach in managing morbidly obese surgical patient is essential to achieve a favorable perioperative outcome.