**Recent trends in management**
**Of**

# Acute Aortic Dissection

An essay
Submitted for Partial fulfillment of master degree in
General surgery

## By


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# الإتجاهات الحديثة في طرق تشخيص وعلاج انشطار الأورطى الحاد

مقال مقدم
للحصول على درجة الماجستير فى الجراحة العامة
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# SUMMARY

Aortic dissection occurs when a tear in the aortic intima exposes the underlying media to the hydrodynamic forces of blood within the aortic lumen leading to dissection within the media. A false lumen is created by blood filling the space within the media between the intimal flap and the adventitia.

The documented incidence is approximately 2.9 per 100,000 per year. The peak incidence of aortic dissection is in the sixth and seventh decades of life, with a mean age of 62 years. Overall, men are affected twice as often as women (68% vs. 32%).

Aortic dissection is classified as acute or chronic based upon the duration of symptoms at presentation. Frist the Stanford classification of aortic dissection distinguishes between type A and type B; Type A means the dissection includes the ascending aorta and Type B dissection does not involve the ascending aorta. While the De Bakey classification subdivides the dissection process in Type I dissection involving the entire aorta, Type II dissection involving only the ascending aorta and Type III dissection sparing the ascending aorta and the arch.

All mechanisms that weaken the aortic wall lead to higher wall stress, which can induce aortic dilatation and aneurysm formation, eventually resulting in aortic dissection or rupture as hypertension, which is the most common clinical predisposing factor for aortic dissection, also, three major inherited connective tissue disorders are currently known to affect the arterial walls: (1) Marfan's syndrome, (2) Ehlers-Danlos syndrome, and (3) familial forms of thoracic aneurysm and dissection.

The diagnosis of acute aortic dissection requires high index of suspicion. The most common initial symptom of acute aortic dissection is severe migrating back or chest pain (up to 96% of cases). Dyspnea, orthopnea and dysphagia may also be presnt. Neurological symptoms such as transient syncope or stroke are often

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## List of abbreviations

**ACE** Angiotensin Converting Enzyme

**AMI** Acute Myocardial Infarction

| | |
|---|---|
| **CHF** | Congestive Heart Failure |
| **CRP** | C-Reactive protein |
| **CT** | Computed Tomography |
| **DHCA** | Deep Hypothermic Circulatory Arrest |
| **DP/DT** | Pressure changes on time |
| **ECG** | Electrocardiogram |
| **EDS** | Ehlers-Danlos Syndrome |
| **EVAR** | Endovascular Aortic Aneurysm Repair |
| **FBN-1** | Fibrilin-1 |
| **GRF** | Gelatin Resorcinol Formaldehyde |
| **ICU** | Intensive Care Unit |
| **IMH** | Intramural Haematoma |
| **IRAD** | International Registry of Aortic Dissection |
| **IVUS** | Intravascular Ultrasound |
| **MDCTA** | Multi detector computed tomography |
| **MFS** | Marfan's syndrome |
| **MPR** | Multi –planner Reformated |
| **MRI** | Magnetic resonance Imaging |
| **ROI** | Region Of Interest |
| **SVC** | Superior Vena Cava |
| **TAA-TAAA** | Thoracoabdominal Aortic Aneurysm |
| **TEE** | Transoesophageal Echocardiography |
| **TTE** | Transthoracic Echocardiography |

# Introduction

# Aim of the work

# Anatomy

# Histology

# Pathology