

# Causes of Death from Descending Aortic Disease – An Autopsy-based Study

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## Objective:

- In this study, we aimed to describe characteristics of descending aortic conditions leading to aortic rupture and death

## Methods:

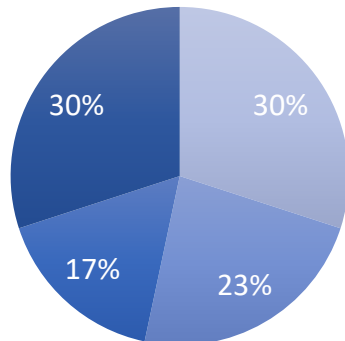
1994-2022

Fatal Rupture of the Descending Aorta  
N=30

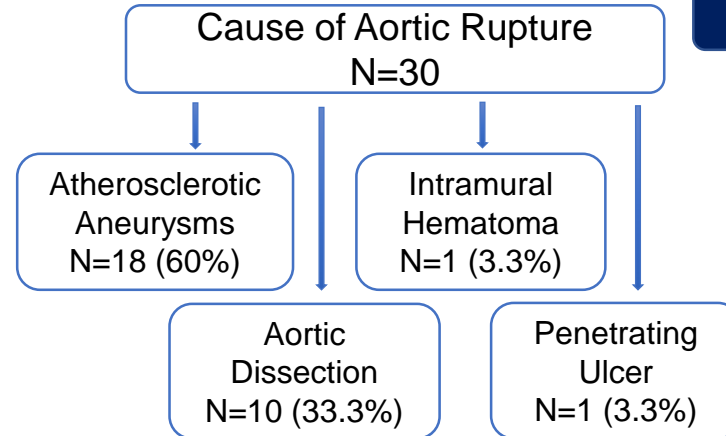
Review of autopsy reports

## Circumstances of death

- Found dead at home
- Unsuccessful Resuscitation
- Expired Enroute
- Died in ER



## Cause of Aortic Rupture N=30



The most common initial symptom for atherosclerotic aneurysm patients was collapse (n=6, 33.3%), whereas back pain (n=5, 50%) was prominent in the dissection group

Interval between the onset of symptoms and death, median (IQR), hours

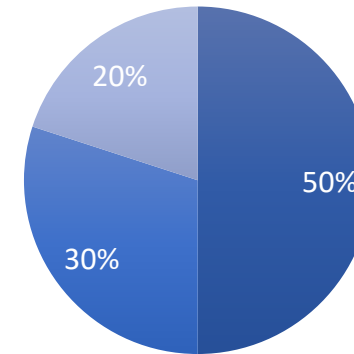
- Atherosclerotic aneurysm: 6 (1-96)
- Aortic dissection: 3 (1-34)

History of Hypertension (from available clinical information), n(%)

20 (66.7)
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## Results:

## Aortic Dissection



- Acute Dissection
- Chronic Dissection w/ Aneurysm
- Chronic Dissection w/o Aneurysm

Atherosclerotic aneurysm size, median (IQR), cm  
N=18: 6 (5.4-7.8)

Among the 20 patients who died because of aneurysm rupture, 7 had not been diagnosed with aneurysm antemortem; 2 of them declined surgery due to the high risk of the procedure

Eleven patients had aneurysms >5.5cm identified on imaging but did not have surgical referrals in a timely fashion

## Conclusions:

While not all cases of descending aortic aneurysms require emergent intervention, it is extremely important to schedule surgical intervention soon after guidelines thresholds are met especially in view of the availability of endovascular therapy for the majority of patients with descending aortic pathology