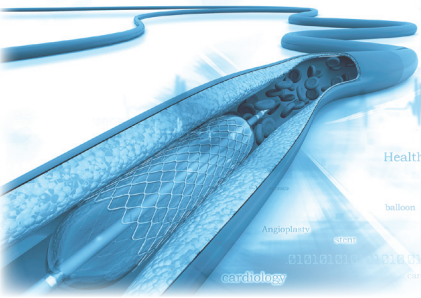
CHAPTER 9



ANESTHESIA MANAGEMENT IN THE ENDOVASCULAR TREATMENT OF AORTIC PATHOLOGIES

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INTRODUCTION

Aortic aneurysms are usually caused by degeneration of the media layer of the aortic wall due to atherosclerosis and disruption of elastic fibers. Their dissection occurs when the blood flow is diverted from the true lumen of the aorta to a false lumen due to a tear in the intima (1). In addition, genetic predisposition (e.g, Ehlers-Danlos Syndrome, Marfan Syndrome), infectious agents (e.g, syphilis), changes in aortic wall structure with age, metalloproteinase changes, smoking, trauma, hypertension, aortic stenosis, and inflammation are among the other etiological factors (2). An aneurysm is defined as an enlargement of more than 50% of the arterial diameter and includes all three layers of the artery. In some very large aneurysms, the intima and media layers may be very thin (3).

Most aortic aneurysms (80%) occur in the abdominal aorta (Figure 1). Therefore, endovascular aortic repair (EVAR) is mostly applied in infrarenal abdominal aortic aneurysms.

Indications for endovascular intervention in abdominal aortic aneurysms:

- Increased aortic diameter by more than 50%
- Growing more than 0.5 cm in six months or more than 1 cm in one year
- To be symptomatic

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