

# Guest editor's introduction: abdominal aorta

Jay P. Heiken

Mallinckrodt Institute of Radiology, Washington University School of Medicine, Saint Louis, MO 63110, USA

As abdominal radiologists, our interests are often directed to the organs of the gastrointestinal and genitourinary tracts. The aorta not only provides the blood supply to the splanchnic circulations that nourish these organs, but it is itself affected by many of the categories of disease processes that affect other abdominal organs including degeneration, inflammation, and trauma. Because of the aorta's critical role of supplying blood to all abdominal organs, disease processes affecting the aorta often require urgent diagnosis and treatment in order to avoid end-organ compromise or death.

The prevalence of abdominal aortic aneurysm (AAA) in the United States has been reported to be 2–19% in men and up to 4% in women [1–3]. In this special section, Dr. Brant Ullery and colleagues discuss the epidemiology and management of individuals with AAA.

Rupture is a catastrophic complication of AAA which results in very high morbidity and mortality. Radiologists play a critical role in evaluating patients with suspected AAA rupture. Understanding subtle imaging signs of AAA instability or rupture can be life-saving. Dr. William Curtis and colleagues discuss the radiologic evaluation of AAA rupture and other acute nontraumatic disorders of the aorta.

Endovascular treatment of AAA has become commonplace. It is important for abdominal radiologists to understand the AAA characteristics that determine a patient's candidacy for endovascular versus open repair, the expected postoperative imaging appearances, and the imaging findings of postoperative complications. Dr. Richard Hallett and colleagues discuss the preoperative and postoperative imaging of AAAs.

Injury to abdominal organs from blunt or penetrating trauma is a major cause of morbidity and mortality worldwide. Although the aorta is injured less commonly than other abdominal organs, recognition of aortic injury can be critical for patient survival. Dr. Richard Tsai and colleagues discuss the radiologic evaluation of abdominal aortic trauma.

I would like to thank Dr. C. Daniel Johnson, the editor of *Abdominal Radiology*, for inviting me to organize this special section on the abdominal aorta. It has been a pleasure working with the contributing authors whose knowledge and expertise will provide the readers of *Abdominal Radiology* with an understanding of the epidemiology and management of AAAs and the information needed to diagnose nonemergent and emergent disorders of the abdominal aorta.

## Compliance with ethical standards

**Conflict of interest** The author has a patent agreement with Guerbet and Bayer.

**Ethical approval** This article does not contain any studies with human participants or animals performed by any of the authors.

## References

1. Singh K, Bonna KH, Jacobsen BK, et al. (2001) Prevalence of and risk factors for abdominal aortic aneurysms in a population-based study: the Tromso study. *Am J Epidemiol* 154:236–244
2. Boll AP, Verbeek AL, van de Lisdonk EH, van der Vliet JA (1998) High prevalence of abdominal aortic aneurysm in a primary care screening programme. *Br J Surg* 85:1090–1094
3. Pleumeekers HJ, Hoes AW, van der Does E, et al. (1995) Aneurysms of the abdominal aorta in older adults. The Rotterdam study. *Am J Epidemiol* 142:1291–1299