Editorial

The Management of Peripheral Vascular Aneurysms: Present and Future Options

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This thematic issue of *International Journal of Angiology* presents an update on the management of peripheral vascular aneurysms. The objectives of this issue are to discuss the recent developments in epidemiology, pathophysiology, diagnosis, and treatment modalities of peripheral vascular aneurysms. This review will be of benefit to surgeon, health care professionals, and patients.

Drs. Tanner I. Kim and Bauer Sumpio focus on the management of asymptomatic popliteal artery aneurysms (PAA). Popliteal artery aneurysms are the most common peripheral artery aneurysm. They are frequently symptomatic and are associated with high morbidity and limb loss. Asymptomatic PAAs have the likelihood of becoming symptomatic with rates of 70% within 5 years. The management of PAAs include open and endovascular approaches. Endovascular intervention has led to an increase in stent graft replacement for PAAs and challenged the open repair approach. Presently open surgical repair is the preferred choice for repair of asymptomatic PAAs, provided there is venous conduit available in younger active patients without significant comorbidities. Endovascular repair is appropriate for patients with good venous conduit, or in older patients with several comorbidities. They suggest a randomized controlled trial with long-term follow-up is needed to identify patients who would benefit most from either treatment option.

Drs. Maen Aboul Hosn and John D. Corson et al present in depth, the incidence, pathophysiology, clinical signs and symptoms, diagnosis and management of visceral artery aneurysms, including celiac artery, hepatic artery, splenic artery, superior mesenteric artery, inferior mesenteric artery, pancreaticoduodenal artery, and gastroduodenal artery aneurysms. They describe that visceral artery aneurysms are rare. Ruptured visceral artery aneurysms have a high mortality rate. Management of visceral artery aneurysms include open endovascular or hybrid approaches, and improved and refined endovascular techniques. Minimally invasive approaches are now a dependable option for the management of visceral artery aneurysms. Long-term follow-up is needed to confirm the preference of endovascular procedures compared with open surgical procedures in appropriately selected cases.

Drs. Jon C. Henry and Randall W. Franz have provided an excellent review on peripheral arterial pseudoaneurysms. They have provided an overview on the epidemiology, natural history, pathophysiology, diagnosis, and treatment of pseudoaneurysms. The treatment modalities include: observation and surveillance, ultrasound guided-compression, ultrasound-guided thrombin injection, endovascular intervention, and open surgery and their risk benefits. Treatment modalities depend upon the condition of the patient and characteristics of the pseudoaneurysms. They suggest that follow-up is required to ensure continued thromboembolism.

Drs. Cody Jo K. Kraemer and Wei Zhou have given in detail an update on the carotid artery aneurysm and its treatment. They report that carotid artery aneurysm is a rare disease estimated to be 0.1–2.0% of all carotid procedures and accounts for 0.4–4.0% of all peripheral arterial aneurysms. They have provided in detail the etiology, clinical presentation, and treatment. The treatment modalities include; medical therapy, surgical approach, and endovascular approach. Open surgical intervention has been the mainstay treatment for carotid aneurysms for years but currently an endovascular approach has been shown to be very effective. These authors in the end state that there are no clear

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guidelines, expert consensus, or treatment algorithm for the treatment of carotid artery aneurysms.

Dr. K. Nishimura and his colleagues present an interesting case of a ruptured deep femoral artery, initially confused with incarcerated inguinal hernia. They report an old man presented to the hospital with a painful mass in the right groin. He had several spells of unconsciousness. This mass looked like an incarcerated inguinal hernia. After numerous diagnostic tests, a diagnosis of a ruptured deep femoral artery aneurysm was made. The treatment included replacement of the deep femoral artery with ePTFE graft. Postoperative course was uneventful. Patient died 13 months after operation.

Dr. A. Ettorre et al present a rare case of renal artery pseudoaneurysm a serious complication after partial nephrect-

omy. They describe a female patient who underwent an open partial nephrectomy and developed sepsis. The patient was transferred to the department of angiology. A diagnosis of renal artery pseudoaneurysm was made after numerous diagnostic tests. Various treatments were given to the patient and patient recovered. The authors concluded that partial nephrectomy may lead to renal artery pseudoaneurysm.

We sincerely thank to all authors for their contribution of excellent articles in this thematic issue, and greatly appreciate the reviewers for their time, critical comments, and helpful suggestions. We deeply appreciate the immense support of Denise M. Rossignol, Executive Director, International College of Angiology, and Managing Editor, *International Journal of Angiology*, in completing this task.