

New Society for Vascular Surgery guidelines provide clarity around treatment of visceral aneurysms



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Aneurysms of the renal and visceral arteries are common pathologic entities presenting to vascular surgeons everywhere. All of us can think first hand of patients who have experienced ruptured visceral aneurysms, and, generally, the results and outcomes have not been favorable. However, a huge void exists in our understanding of when one of these aneurysms should be treated to prevent complications. Good natural history information is sparse, making diameter thresholds for repair difficult to determine and purely subjective, rather than based on evidence. In this issue of the *Journal of Vascular Surgery*, the Society for Vascular Surgery has presented the clinical practice guidelines for the management of visceral aneurysms to finally provide some guidance for us all.¹ The writing group was led by Dr Rabih Chaer, and the guidelines are based their recommendations after an extensive review of the reported data performed by the Mayo Clinic Evidence Based Practice Center.²

These guidelines offer 99 recommendations involving screening, the indications for repair, the preferred methods of repair, and postoperative surveillance, in addition to other relevant topics. The recommendations were graded with respect to the strength of the recommendation and the quality of the evidence. Almost one half of the recommendations (n = 48) were considered grade 1 or strong. The guidelines offer guidance for specific clinical situations, including women of child-bearing age and patients with connective tissue disorders. The location of the visceral aneurysms included in this document is expansive and includes aneurysms of the renal arteries, splenic artery, celiac artery, gastric and gastroepiploic arteries, hepatic artery, superior mesenteric artery, jejunal, ileal, and colic arteries, and gastroduodenal and pancreaticoduodenal arteries.

Aneurysms of the renal arteries and splenic artery are the most common visceral aneurysms that a vascular surgeon will encounter and is the area in which these guidelines offer important recommendations. The size threshold for elective repair of asymptomatic, true aneurysms of these arteries has long been controversial, and surgeons have not been able to reach a consensus. These guidelines recommend a diameter threshold of 3 cm for the repair of these aneurysms in accordance with their review of the reported data and the natural history information available. They have also recognized that important situations will exist for which repair of renal and splenic artery aneurysms will be indicated regardless of the size or diameter. The most commonly discussed scenario is with women of child-bearing age. A ruptured splenic or renal artery aneurysm in such cases can lead to the catastrophic outcome of maternal and fetal mortality. Thus, the authors have recommended repair of these aneurysms in these women, regardless of the size of the aneurysm. Another specific scenario discussed is a renal artery aneurysm in the presence of renal artery stenosis in a patient with medically refractory hypertension. In such situations, the authors have recommended repair of these renal artery aneurysms regardless of their size.

In addition to providing much needed guidance about when to treat these aneurysms, the authors have provided recommendations regarding the method of repair. For aneurysms of the renal arteries, open and endovascular techniques are discussed, as well as complex ex vivo repairs with autotransplantation of the kidney. The role of laparoscopic and robotic surgery has also been explored in this exhaustive document. For cases of aneurysms of the splenic artery, the method of repair will often be dictated by the location of the aneurysm and the health of the patient. These guidelines have considered these issues in their recommendations for open or endovascular repair of these aneurysms and the role of splenectomy or methods of repair that preserve the spleen.

In a similar fashion, the authors have provided guidance for surgeons treating aneurysms of other visceral arteries, from the celiac artery to the pancreaticoduodenal branches. Other specific instances covered in the Society for Vascular Surgery clinical practice guidelines include the treatment of pseudoaneurysms, aneurysms associated with arterial dissection, mycotic or infected aneurysms, and aneurysms associated with connective tissue

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disorders, among others. The recommendations regarding the appropriate use of radiologic investigations including screening for other aneurysms, aneurysm surveillance, and postoperative surveillance.

These are just some of the topics covered in these long-awaited Society for Vascular Surgery practice guidelines describing the treatment of visceral artery aneurysms. Although the reported data have not always been of the highest caliber, the authors have performed an exceptional job of providing much needed guidance to vascular surgeons treating these patients with challenging pathologic entities.

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