

**Comparison of Endovascular Procedures Performed by Different Specialties at a Single Institution**  
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**Background:** With the rapid proliferation of endovascular procedures across different specialties, the role of vascular surgeons in this competitive environment is still evolving, while comparisons of outcomes between specialties are lacking. The purpose of this study is to compare clinical volume and peri-procedural complications between vascular surgeons (VASC), interventional radiologists (IR), and cardiologists (CARD) for endovascular procedures performed at a single academic center.

**Method:** All patients undergoing percutaneous balloon angioplasty or stent procedures for occlusive disease in defined anatomic locations (aortoiliac, lower extremity, renal, and subclavian arteries) between January 1, 2001 and December 31, 2003 were identified from a prospective multi-specialty quality assurance vascular database. Clinical volume, indications, technical details, procedure complexity, peri-procedural complications and mortality (within 30 days) were reviewed. Comparisons between each of the specialties were made using chi square analysis.

**Results:** During the 3 year period, 352 procedures were performed in 222 patients (VASC 206 procedures [58.5%], IR 97 procedures [27.6%], CARD 49 procedures [13.9%]). Balloon angioplasty or stenting occurred in 170 iliac, 68 lower extremity, 96 renal, and 18 subclavian arteries. Overall periprocedural complication rate was 13.4% (VASC 10.7%, IR 15.5%, CARD 20.4% [p=NS]), and included access site hematoma (5.1%), renal insufficiency (1.7%), arterial dissection (1.4%), stent misdeployment (1.1%), cardiac problems (1.1%), vessel thrombosis (0.9%), pulmonary problems (0.6%), access site pseudoaneurysm (0.3%), arterial perforation (0.3%) and other (1.1%). 30-day mortality was 1.7%, with only 1 death related to periprocedural morbidity.

**Conclusion:** Percutaneous endovascular procedures performed for occlusive disease by vascular surgeons can be performed safely and effectively compared to other specialties within the same institution, with a trend towards lower peri-procedural complication rates that is inversely related to increased clinical volume.

