used, including the use of endoscopic graspers, 18F sheaths, and snaring a second wire below the collar of the filter to collapse it into the sheath.

**Results:** A total of 274 patients underwent attempted IVCF retrieval; three were excluded intraoperatively due to thrombus in the filter. Most filters were Gunther Tulips (99%), and 71% had been placed prophylactically before bariatric surgery. A total of 267 filters (98.8%) were retrieved successfully, 212 (79%) using standard snaring and 55 (21%) with “fall-back” techniques. In patients undergoing “fall-back” techniques, technical success was achieved 100% of the time. The median time since insertion was significantly longer in the “fall-back” group (173 vs 70 days, \(P < .0001\)). Three intraoperative complications occurred: fractured wires embolized to the right atrium or pulmonary artery and were successfully removed endovascularly. The majority of the procedures (80%) were safely performed under sedation in both groups.

**Conclusions:** Incorporation of “fall-back” techniques may allow 100% technically successful and safe removal of retrievable IVCFs and are especially useful in removing filters with prolonged dwell time.

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**Do Young Patients Really Do Worse After Infrainguinal Bypass?**

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**Objectives:** Many believe extremes of age correlate with poorer outcomes in treatment for lower extremity peripheral arterial disease (PAD). We hypothesized that the youngest patients would have significantly poorer outcomes compared with older cohorts due to the precocious nature of their PAD.

**Methods:** We studied all patients in the Vascular Study Group of New England (VSGNE) database undergoing infrainguinal bypass for PAD between 2003 and 2013. Age was divided into three categories: <50, 50 to 79, and >79 years. Our primary outcomes were 1-year freedom from a major adverse limb event (MALE), defined as ipsilateral amputation or need for secondary intervention, and amputation-free survival (AFS).

**Results:** A total of 5265 patients received infrainguinal bypass for PAD. Of these, 324 (44%) female were aged <50 years (6.1%), with a mean age of 45 years. There was a significantly higher proportion of African Americans in the youngest age group (6.8% <50 years, 3.5% 50-79 years, 3.5% >80 years, \(P = .008\)). More bypasses were done for claudication than acute limb ischemia in patients aged <50 years (74.5% vs 25.5%, \(P = .55\)), with a trend toward using vein over prosthetic and with less use of adjuncts or concomitant proximal procedures. Overall, AFS-free survival was similar across age groups (\(P = .32\), Fig). However, when considering only critical limb ischemia patients, a trend toward poorer AFS-free survival in the youngest patients was evident (\(P = .07\), Fig). AFS was 80.1% <50 years, 79.9% at 50 to 79 years, and 60.1% at >80 years (\(P < .001\)).

**Conclusions:** For patients aged <50 undergoing bypass surgery, this large series demonstrates similar overall medium-term graft-related outcomes compared with older cohorts. Further, whereas the youngest patients with critical limb ischemia have a trend toward poorer limb-related results; however, these differences were not dramatic.

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**MARCKS Signaling Differentially Regulates Vascular Smooth Muscle and Endothelial Cell Proliferation Through a p27kip1-Dependent Mechanism**

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**Objectives:** Intimal hyperplasia is the result of pathologic vascular smooth muscle cell (VSMC) dedifferentiation to a migratory and proliferative phenotype. Myristoleated alanine-rich C kinase substrate (MARCKS) is overexpressed in animal models of intimal hyperplasia. MARCKS knockdown has been demonstrated to arrest VSMC proliferation, with little effect on endothelial cell (EC) proliferation in vitro. We sought to identify the mechanism of MARCKS-mediated differential regulation of proliferation.

**Methods:** Fluorescence-activated cell sorting analysis was used to determine the proportion of cells in each phase of the cell cycle. VSMCs deficient in p27kip1 expression were obtained from aortic VSMCs procured from p27kip1-/- mice (Jackson Laboratory, Bar Harbor, Me). Confocal microscopy determined the relative expression of p27kip1 and its subcellular localization. Kinase interacting with stathmin (KIS) was overexpressed with wild-type KIS (pCDNA3.1 KIS) or kinase-dead KIS (pCDNA3.1 KIS/R). Both plasmids were a generous gift from Dr Alexandre Maucuer (University of Massachusetts). The murine aortic injury model was used to demonstrate SM proliferation and re-endothelialization.

**Results:** In cultured human coronary artery VSMCs, short interfering RNA-mediated MARCKS knockdown prevented progression from phase G0/G1 to S. MARCKS knockdown resulted in increased protein expression of p27kip1 but not p21kip1. Furthermore, there was no change in proliferation rates in VSMCs derived from p27kip1-/- mice after MARCKS knockdown. MARCKS knockdown resulted in decreased pSer10-p27kip1, pThr187-207kip1, KIS, cyclin D1, and Skp2 expression but had no effect on cyclin E1. The decrease in pSer10-p27kip1 was the greatest in magnitude. Phosphorylation of pSer10-p27kip1 is required for nuclear export and subsequent degradation of p27kip1. Confocal microscopy demonstrated nuclear accumulation of p27kip1 after MARCKS knockdown. Nuclear trapping of p27kip1 and VSMC cell cycle arrest were reversed by overexpression of KIS. Strikingly, MARCKS knockdown in vascular ECs significantly increased KIS expression and correspondingly, cell proliferation in vitro. Finally, MARCKS knockdown resulted in a decrease in VSMC proliferation determined by ki67 staining in vivo and increased re-endothelialization in a murine aortic injury model.

**Conclusions:** MARCKS knockdown arrests the VSMC cycle at phase G1 through a p27kip1-dependent mechanism. MARCKS knockdown results in nuclear trapping of p27kip1 and 71% by inhibiting KIS. KIS is differentially regulated by MARCKS signaling in vascular ECs and VSMCs. This work further clarifies a potential target for the prevention of intimal hyperplasia.

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**Leave ‘Em or Retrieve ‘Em: Management of Inferior Vena Cava Filters**

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**Objectives:** Inferior vena cava (IVC) filter placement is performed to mitigate the risk of pulmonary embolism (PE) when anticoagulation is contraindicated or ineffective. Technical advances now allow catheter-based retrieval. Many believe the benefits of retrieval are self-evident, yet retrieval carries an inherent complication risk and cost. The purpose of