tic endograft positioning using rtMRI in animal model of AAA.

Methods and Results. For rtMRI we used a clinical 1.5T MRI scanner customized with a novel external image reconstruction system, in-lab consoles, phased-array surface coils, and interactive imaging features such as independent channel coil selection and rapid magnetization preparation, and interleaved multiplanar acquisition. Typical parameters using steady state free precession (“FISP”) were 256/128 matrix, 3/4 partial phase Fou- rier, field of view 36 cm, bandwidth 62.5kHz. Stent endoluminal abdominal aortic aneurysm was created in 50-70kg Yorkshire swine by transfemoral 1.6-2.0-fold balloon overstretch under rtMRI. Clinical intravascular 0.030" MRI guidewire received coils (Intervention™, Surgi-Vision) guided percutaneous device placement. Clinical tubular stent-grafts were positioned to exclude the AAA under simultaneous multiplanar rtMRI guidance. Conventional MRI and MRA demonstrated appropriate aneurysm exclu-

Conclusion. rtMRI successfully guides AAA endograft delivery in a pig model, and is a promising guidance modality for clinical procedures. Simple customization of endografts and delivery systems can be expected to facilitate accurate device placement in patients with complex aneurysm disease.

1100-199 Contrast Enhanced Duplex Ultrasound Improves Endoleak Detection Following Endovascular Abdominal Aortic Aneurysm Repair

Andrew B. Civitello, Amy Woodruff, Hatim Mahmood, Kathy Doughtery, Cynthia Askins, Zvonimir Krajcer, Stephanie Coulter, Texas Heart Institute, Houston, TX

Background: Development of blood flow outside the graft lumen (endoleak) may occur at any time after endovascular AAA exclusion, exposing the patient to increased risk of aneurysm rupture. Patients must undergo lifelong surveillance imaging to ensure long term freedom from graft failure. The gold standard for endoleak detection, computed axial tomographic (“CT”) angiography, is expensive, inconvenient and exposes the patient to potentially nephrototoxic contrast. Duplex ultrasound (“DU”) is an attractive alternative, but concerns regarding accuracy have precluded its widespread clinical acceptance. Optimizing insonation contrast agent used with echocardiography to enhance endocardial border detection. We hypothesized that Optison enhancement of DU imagi- ing would improve the diagnostic accuracy for endoleak diagnosis. This study compares contrast enhanced DU with standard DU and CT angiography for the diagnosis of endovascular AAA repair.

Methods: After endovascular AAA repair, 48 patients underwent follow-up imaging with CT angiography, DU and Optison enhanced DU at regular intervals. In 52 consecutive scans, the accuracy of endoleak detection using DU with and without contrast enhancement was compared with CT angiography.

Results: Unenhanced DU had a sensitivity of 57%, specificity of 94%, PPV of 80% and an NPV of 85%. Addition of Optison enhancement significantly improved the sensitivity, PPV and NPV, which were 67%, 87% and 85% respectively. Specifically remained unchanged at 94%. Both enhanced and unenhanced DU identified endoleaks in 2 patients, which were not detected by CT angiography.

Conclusions: Contrast enhanced DU is more accurate than standard DU for the detection of endoleaks following endovascular AAA repair and is a reliable screening test. The false positive results with contrast enhanced DU may be due to the failure of CT angiogra- phy to detect slow flow in collateral pathways. Although encouraging, further studies are needed in a larger group of patients to determine if contrast enhanced DU is reliable enough to replace CT angiography in routine follow-up after endovascular AAA repair.

1100-200 Nanomanufactured Nitinol Self-Expanding Stent Graft in a Carotid System in a Porcine Model

Steven R. Bailey, Eugene Sprague, Chris Boyle, Luis Velez, Jodie Polan, Julio Palmaz, University of Texas Health Sciences Center at San Antonio, San Antonio, TX

Background: Current stent designs are limited by neo intimal proliferation and thrombo- sis. This process appears to be related to both the degree of vascular injury and the injury scores were 0.28 at 10 days and 24 at 28 days. Neointimal hyperplasia was only seen at 24 days. The inflammatory score was also very low at both 10 and 26 days at 0.75. Conclu- 

Conclusions: RCIN occurred in 2 of the 41 patients in the NAC group (5%) and in 8 of the 39 patients in the hydration group (20.5%). The amount of contrast dye administered was similar (Group B: 1.9±0.5 mg/dl in Group A vs. 1.9±0.6 mg/dl in Group B, p= 0.57). The amount of contrast dye administered was similar (Group B: 1.9±0.5 mg/dl in Group A vs. 1.9±0.6 mg/dl in Group B, p= 0.57). The amount of contrast dye administered was similar (Group B: 1.9±0.5 mg/dl in Group A vs. 1.9±0.6 mg/dl in Group B, p= 0.57). The amount of contrast dye administered was similar (Group B: 1.9±0.5 mg/dl in Group A vs. 1.9±0.6 mg/dl in Group B, p= 0.57).

Methods: We prospectively randomized 80 patients with stable, chronic RD, undergoing cardiac catheterisation/intervention at 3 centres in the UK, to a rapid protocol of IV NAC (150mg/kg in 500ml 0.9% saline) infuse over 30 minutes immediately prior to contrast exposure followed by 5mg/kg/min of 0.9% saline over 4 hours. Pre-infusion NAC (1mg/kg) was ceased after the bolus in 3 patients (7%) due to flushing, itching or a transient rash. Conclusion: This study demonstrates that in patients with RD undergoing coronary angiography/intervention, a rapid protocol of IV NAC reduces the incidence of RCIN and lowers SCr. Administration of IV NAC should be considered in all patients at risk of RCIN prior to contrast exposure when time restraints preclude adequate oral prophylaxis.

1101-201 Reversal of Slow or No-Reflow During Percutaneous Transluminal Coronary Angioplasty Using Budesonide of Intracoronary Adenosine and Sodium Nitroprusside in Combination

Kyeong H. Park, Michael C. Chiang, Ulrich G. Rahn, Hemang A. Baxi, Anish H. Chandarana, Ajay M. Naik, Kanjan J. Shah, Ramesh K. Goyal, Sterling Hospital, Ahmedabad, India, L. M. College of Pharmacy, Ahmedabad, India

Background: Percutaneous intervention in Acute Coronary Syndromes (ACS) has been associated with high incidences of "slow or no-reflow", ranging from 11% to 30% with an increased risk of complications. The objective of the study was to evaluate the efficacy of

ABSTRACTS - Angiography & Interventional Cardiology

Poster Session

Monday, March 31, 2003, Noon-2:00 p.m.
McCormick Place, Hall A
Presentation Hour: Noon-1:00 p.m.