immediate and follow-up results of implanting self-expanding fabric covered endoprostheses for exclusion of traumatic peripheral arterial lesions.

Methods: In this study we used the EndoPro 1/Passager device (Boston Scientific, USA), which is a self-expanding nitinol stent covered by an ultrathin layer of dacron fabric. In 27 patients a total number of 31 endoprostheses (mean length 7.3 cm) were implanted in iliac (n = 20), femoral (n = 6) and popliteal arteries (n = 1). Indications for stenting were large dissections (n = 24) or traumatic arterial lesions (arterio-venous fistula n = 1, arterial perforation n = 2).

Results: An immediate exclusion of the lesion could be achieved in all cases. Major complications related to the implantation of the endoprostheses did not occur. However, within 24 hours after implantation a relevant increase in body temperature occurred in 14 patients (51.9%). WBC and CRP were elevated in 13 (48.1%) and 17 (63.0%) patients, respectively. Repeated blood cultures could not show any bacterial growth.

The primary patency after a mean follow-up of 19 (5 to 31) months was 85.2%. In two cases with markedly impaired peripheral run-off subacute occlusions occurred. In 2 other cases the angiography revealed relevant restenoses (>75%). The patency could be restored in 2 of these 4 cases leading to a secondary patency rate of 92.6%.

Conclusion: The EndoPro 1/Passager endoprosthesis seems to be safe and effective to seal large dissections and traumatic lesions of peripheral arteries, showing a high long-term patency rate.

4:15

861-2 Acute Aortic Dissection: Presentation, Management and Outcomes in 1996 – Results From the International Registry for Aortic Dissection (IRAD)

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Recent advances in management, especially imaging modalities and surgical techniques, have altered the care of acute aortic dissection (AoD). To assess presentation, management and outcomes of AoD in the modern era, 175 patients (pts) with AoD, (mean age 62 years, 67% male, 61% type A), were enrolled at 10 centers in 1996. By history, 83% pts had abrupt onset of pain, more often sharp than tearing in nature; 41% of type A and 32% of type B AoD were associated with normal blood pressure at presentation. Aortic regurgitation was noted in just 36.4% of type A AoD. Widened mediastinum was absent on CXR in 50.3% of all pts. Due to advanced age, co-morbidity, and surgery refusal, 31.8% of type A AoD pts were managed medically as shown in table:

All patients		Type A		Type B	
Type of management		Surgical	Medical	Medical	Surgical
N (%)	175	73 (68%)	34 (31.8%)	58 (85.3%)	10 (14.7%)
Deaths	48 (27.4%)	20 (27.4%)	18 (52.9%)	6 (10.3%)	4 (40.0%)

Conclusion: Despite advances in diagnosis and treatment of AoD, in hospital mortality remains high, especially for pts with type A AoD who do not receive surgical therapy. A high clinical index of suspicion is necessary since classical symptoms, signs, and CXR abnormalities are often absent.

4:30

861-3 Aortic Intramural Hemorrhage and Penetrating Aortic Ulcer

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Background: The aortic intramural hemorrhage (IMH) visualized by plain and contrast CT scan has seemed to represent a subgroup of acute aortic dissection without typical intimal flap or falselumen. The clinical presentation of penetrating aortic ulcer (PAU) is similar to that of classic aortic dissection, but the role of PAU on the development of aortic dissection and the relationship between IMH and PAU is still unknown. The aim of this study is to clarify the relationship between IMH and PAU.

Methods: The subjects were 51 consecutive patients (pts) with IMH (a mean age of 68 ± 11 years) during 6 years who were diagnosed by typical symptoms and CT scan images. To evaluate the prognostic implications of IMH, these pts were followed by CT scan and contrast or MR aortograms.

Results: Of 51 pts, 11 pts developed to have PAU during hospital staying. In these 11 pts, the progression to typical aortic dissection or new intimal tear flap was seen in 7 pts (64%) during hospital staying. While, only 4 of 40 pts (10%) without PAU developed new dissection with intimal tear ($p < 0.001$). In 11 pts with PAU, 4 pts (36%) died, 3 from rupture and 1 after minor surgery, and all of these pts had a newly developed dissection. In 40 pts without PAU, only 3 pts (8%) died, 1 from rupture and 2 from cardiac tamponade ($p = 0.03$).

Conclusion: PAU was found during the course of following-up in pts with IMH and might become the main cause of newly developed dissection with intimal tear and rupture of aorta.

4:45

861-4 Endovascular Abdominal Aortic Aneurysm Repair: Correlation Between Infrarenal Aortic Diameter and Post Repair Endoleak

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Aim: To assess whether the diameter of the infrarenal aorta influenced the occurrence of a proximal anastomotic endoleak following endovascular abdominal aortic aneurysm (Endo-AAA) repair.

Methods: Endo-AAA repair was performed in 61 pts (age: 72 ± 8 yrs) who had a large ≥5.0 cm AAA, were high risk/inoperable surgical candidates, and, 34 pts (61%) were unacceptable candidates for other devices because of the aortic neck diameter (≥26 mm). Contrast-enhanced spiral computerized tomography assessed the incidence of endoleak. A proximal (infrarenal) endoleak occurred 6 times (10%), with 5/6 cases occurring in aortas ≥26 mm (5/37 cases; 14%) and only 1 with a neck ≤25 mm (1/24 cases; 4%).

Conclusion: Endoleaks occur more frequently with larger infrarenal aortas, as a result of loss of cylindrical shape, or acquisition of an acute angulation with AAA enlargement and rotation. Intravascular ultrasound and uncovered stent placement, prior to stent-graft placement, restored the aorta's cylindrical shape, and relieved the angulation which enabled better stent-graft placement, and resolution of these problems.

5:00

861-5 Ultrasound Evaluation After Endovascular Repair of Abdominal Aortic Aneurysm

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Background: Endovascular repair (ER) of abdominal aortic aneurysms (AAA) offers a minimally invasive alternative to an open surgical procedure in selected pts. ER may lower mortality and complication rates, shorten hospital stays, and reduce costs.

Purpose: The purpose of this study was to examine the utility of ultrasonography (US) for evaluating the result of ER.

Methods: We studied 16 pts (3 females), mean age 74 ± 8, who underwent ER using an Endovascular Grafting System* which provides a catheter-based delivery and implantation of a sutureless prosthesis for the repair of an unruptured AAA. In 9 pts, a bifurcated prosthesis was positioned below the renal arteries with the bifurcated branches in the iliac arteries. The other 7 pts had a non-bifurcated infrarenal prosthesis. US studies were done 2 - 30 days after ER.

Results: In each pt, the AAA, as well as the entire prosthesis and its bifurcated branches were visualized. The mean AAA diameter was 5.0 ± 0.6 cm. The mean prosthesis body diameter was 2.2 ± 0.3 cm, and the diameters of the bifurcated limbs were 1.0–1.2 cm. Color Doppler studies revealed blood flow limited to the prosthetic lumen and its bifurcation in 15 pts. The space between the prosthesis and the AAA wall was clotted in these 15 pts. In 1 pt, a communication was seen between the prosthesis and the AAA lumen, and the blood within the AAA was not completely clotted. Flow was seen on color Doppler between the prosthesis and the AAA in this pt. This finding was confirmed by angiography.

Conclusion: US is a simple noninvasive tool for the evaluation of the results of ER of AAA, and can detect complications of this procedure.

5:15

861-6 Kissing Stents in the Aortic Bifurcation

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Aortobifemoral bypass grafting has been the standard treatment for patients with debilitating lower limb ischemia from aortoiliac atherosclerosis, but it confers up to a 3% mortality. We report the first series of simultaneously delivered kissing stents used to treat stenosis of the aortic bifurcation. Twenty patients with symptoms of lower limb ischemia and significant atherosclerotic lesions in both ostial common iliac arteries (n = 15) or with extremely complex single ostial iliac stenoses and contralateral ≤50% stenoses (n = 5) were included. Palmaz stents were delivered simultaneously to both limbs of the aortic bifurcation.