no episode of restenosis either within the stent or at the stent edges. IVUS results (Table) show no difference when SE stent edges were compared to placebo stent edges. To the contrary, there was a tendency for reference lumen areas to be larger and plaque areas to be smaller in SE stents, especially at the distal edge.

**Proximal edge**

<table>
<thead>
<tr>
<th>Arterial area, mm²</th>
<th>N=48</th>
<th>N=47</th>
<th>Δ</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.76±5.05</td>
<td>13.89±3.69</td>
<td>0.87</td>
<td>0.37</td>
<td></td>
</tr>
<tr>
<td>Lumen area, mm²</td>
<td>7.65±3.37</td>
<td>6.84±2.61</td>
<td>0.81</td>
<td>0.22</td>
</tr>
<tr>
<td>Plaque area, mm²</td>
<td>7.11±2.90</td>
<td>7.05±2.52</td>
<td>-0.06</td>
<td>0.91</td>
</tr>
</tbody>
</table>

**Distal edge**

| Arterial area, mm² | 11.58±4.08 | 11.46±3.70 | 0.13 | 0.88 |
| Lumen area, mm² | 6.68±2.30 | 5.69±1.91 | 0.99 | 0.03 |
| Plaque area, mm² | 4.90±2.53 | 5.77±2.67 | 0.86 | 0.18 |

Conclusions: Volumetric IVUS analysis shows that there is no "edge effect" when sirolimus-eluting stents are used to treat de novo, native coronary lesions.

9:00 a.m.

880-3

**Optimal Endpoint for Drug-Eluting Stent: Predictive Value of Minimum Stent Area for Long-Term Stent Patency**

Yasuhiro Honda, Eberhard Grube, Toru Kataoka, Karl E. Hauptmann, Yoshinori Morino, Seung-Ho Hur, Paul G. Yock, Peter J. Fitzgerald, SCORE investigators group, Stanford University, Stanford, California, Heart Center Siegburg, Siegburg, Germany.

Minimum stent area (MSA) has been shown to be a consistent predictor of instant restenosis. However, its predictive value is limited because of biologic variability in the restenosis process. Drug-eluting stents (DES) provide a biological effect as well as a mechanical solution to obstrucive lesions. The aim of this study was to investigate the relationship between post-procedure MSA and long-term stent patency following the QUANAM QP2-eluting stent (DES) implantation as compared to bare metal stents (BMS).

**Methods:** SCORE is a randomized trial comparing DES vs. BMS. To date, serial IVUS (baseline and 6-months) studies are available in 64 (DES 30: BMS 34) of 118 enrolled patients. MSA at post-procedure and minimum lumen area (MLA) at follow-up were obtained.

**Results:** The baseline characteristics were similar in DES and BMS. In BMS, only a weak correlation was observed between post-procedure MSA and long-term stent patency following the QUANAM QP2-eluting stent (DES) implantation as compared to bare metal stents (BMS).

**Conclusions:** Preliminary IVUS results suggest that post-procedure MSA may predict long-term stent patency more accurately in DES than in BMS. This finding indicates that post-procedure MSA, a simple mechanical index, can be used as the optimal procedural endpoint for DES, regardless of variable degrees of biological activity in each lesion.

9:15 a.m.

880-4

**Total Suppression of Neointimal Proliferation After Implantation of Sirolimus-Eluting Stents: Volumetric Intravascular Ultrasound Results From the Randomized RAVEL Trial**

Alexandre Abizaid, Patrick Serruys, J. Eduardo Souza, Pim de Feyter, Andres Abizaid, Antonio Colombo, Giulio Guagliumi, William Wijns, Egon Wuytens, Marie C. Morice, Institute Dante Pantazinos of Cardiology, Sao Paulo, Brazil.

Background: We previously showed, in a non-randomized study, that Sirolimus-Eluting (SE) stents inhibit neointimal proliferation. These preliminary results were tested in RAVEL, a double-blinded, randomized, placebo-controlled multicenter trial that compared SE BX Velocity stents (n=120) vs bare BX Velocity stents (BS, n=118).

**Methods:** The intravascular ultrasound (IVUS) sub-study included 95 pts (SE=48 and BS=47).

**Results:**

9:45 a.m.

880-6

**Percutaneous Remodeling and Neointimal Response Following Intracoronary Radiation Therapy: A Volumetric Intravascular Ultrasound Study**

Hiroshi Ohtsu, Yasuhiro Honda, David P. Lee, Shinjiro Sonoda, Mamoo Nakamura, Grzegorz L. Kaluzny, Nadir M. Ali, Paul G. Yock, Albert E. Reizner, Peter J. Fitzgerald, Stanford University, Stanford, California, Baylor College of Medicine, Houston, Texas.

A recent volumetric IVUS study has suggested the role of percutaneous remodeling in subse-quent neointimal response. The aim of this study was to investigate the potential relationship between percutaneous remodeling and neointimal proliferation following intracoronary brachytherapy with a beta source wire (βP).

**Methods:** Serial (baseline and follow-up) volumetric IVUS analyses were performed in 23 stented lesions treated with intracoronary beta radiation enrolled in the PREVENT study. Vessel (V), stent (SV) and lumen volumes (LV) were obtained using Simpson's method. The volumes of plaque and neointima outside the stent (peri-stent volume) and neointima within the stent (intrastent volume, ISV) were computed. Percutaneous remodeling was defined present if ΔV/V > 0 (Group P) and absent if ΔV/V < 0 (Group N).

**Results:** At baseline, V, LV, SV, PSV and ISV were obtained.

The cumulative frequency distribution curve of percent obstruction shows that 90% of the SE group had less than 2% of the stent occupied by neointima (left curve, Figure). Conclusions: In the RAVEL trial, IVUS analysis shows a striking inhibition of intimal hyperplasia 6 months after sirolimus eluting stent implantation.