Prevalence and Clinical Outcome of Polyvascular Atherosclerotic Disease in Patients Undergoing Coronary Intervention – Reply –

We gratefully appreciate the thoughtful comments on our study1 from Dr Athyros. As we showed in our paper, major adverse cardiovascular events (MACE) were significantly higher in the polyvascular disease (PolyVD) group compared with patients with coronary artery disease (CAD) alone. Our study also revealed that older age, hypertension, current smoker, previous coronary artery bypass grafting, previous stroke, chronic kidney disease (CKD), and use of insulin were independent determinants of PolyVD. The most important determinant of PolyVD was CKD.

Furthermore, we investigated the determinants of MACE in the patients who underwent PCI in our study in reference to the suggestion of Dr Athyros (Table). The most important determinant was also CKD. On the other hand, it has been shown that intensive lipid-lowering therapy with statins has significant clinical benefit in patients with stable CAD,2 and cerebrovascular disease.3 Furthermore, statins treatment significantly improves renal function4 and reduces ischemic events in patients with CKD and CAD.5 Therefore, we agree statin therapy may be useful for reducing ischemic events in patients with PolyVD, as Dr Athyros pointed out.

However, in our study we defined CKD as eGFR <30 ml·min⁻¹·1.73 m⁻² and of this group of patients, 64% underwent hemodialysis. It has been shown that treatment with standard-dose statins lowers the low-density lipoprotein cholesterol level but has no significant effect of reducing ischemic events in patients undergoing hemodialysis.6 Thus, we conclude that intensive lipid-lowering therapy with statins earlier may have significant clinical benefit in patients with PolyVD.

Table. Univariate and Multivariate Predictors of MACE

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unadjusted HR (95% CI)</th>
<th>P value</th>
<th>Adjusted HR (95% CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elderly (&gt;70 years)</td>
<td>2.18 (1.53–3.11)</td>
<td>&lt;0.0001</td>
<td>2.00 (1.35–2.98)</td>
<td>0.0005</td>
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<tr>
<td>HDL &lt;40 (mg/dl)</td>
<td>2.22 (1.51–3.27)</td>
<td>&lt;0.0001</td>
<td>1.78 (1.16–2.73)</td>
<td>0.0083</td>
</tr>
<tr>
<td>Previous CHF</td>
<td>3.00 (1.93–4.65)</td>
<td>&lt;0.0001</td>
<td>1.99 (1.22–3.24)</td>
<td>0.006</td>
</tr>
<tr>
<td>Previous CABG</td>
<td>2.10 (1.21–3.64)</td>
<td>0.0085</td>
<td>1.78 (0.97–3.24)</td>
<td>0.062</td>
</tr>
<tr>
<td>Previous stroke</td>
<td>2.04 (1.28–3.26)</td>
<td>0.0027</td>
<td>1.72 (1.04–2.84)</td>
<td>0.036</td>
</tr>
<tr>
<td>CKD</td>
<td>7.257 (4.96–10.63)</td>
<td>&lt;0.0001</td>
<td>6.40 (4.27–9.60)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>PolyVD &gt;2</td>
<td>3.16 (1.94–5.16)</td>
<td>&lt;0.0001</td>
<td>2.08 (1.21–3.58)</td>
<td>0.0084</td>
</tr>
</tbody>
</table>

CABG, coronary artery bypass grafting; CHF, chronic heart disease; CI, confidence interval; CKD, chronic kidney disease; HDL, high-density lipoprotein; HR, hazard ratio; MACE, major adverse cardiac event; PolyVD, polyvascular disease.

Disclosures

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References


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