Plasma Urokinase Antigen and Plasminogen Activator Inhibitor-1 Antigen Levels Predict Angiographic Coronary Restenosis

To the Editor:

We read with great interest the article by Strauss et al.1 on urokinase plasminogen activator (uPA) and plasminogen activator inhibitor-1 (PAI-1) levels in patients with stable angina who underwent percutaneous transluminal coronary angioplasty (PTCA). In their study, plasma samples were drawn from the antecubital vein before and serially after PTCA, and plasma uPA antigen levels were significantly higher, whereas PAI-1 antigen levels were significantly lower, in patients with restenosis.

Previously, we investigated changes in hemostasis in the coronary circulation after PTCA. Blood samples were drawn from the coronary sinus immediately before and after, as well as 4 and 24 hours after PTCA. We found that tissue factor levels in the coronary sinus blood increased significantly 4 and 24 hours after PTCA and that PAI-1 and tissue plasminogen activator levels also increased significantly 24 hours after PTCA. However, in the femoral arterial blood, no significant change in the levels of these markers was observed.2 Furthermore, we found a significant positive correlation between tissue factor levels in the coronary sinus blood and the late loss index 6 months after PTCA, whereas no significant correlation was observed between PAI-1 or tissue plasminogen activator levels and the late loss index. Therefore, we speculate that if, in the study by Strauss et al.,1 the blood samples had been drawn from the coronary sinus rather than the peripheral vein, more definite conclusions regarding the relationship between uPA and PAI-1 levels and restenosis could have been obtained.

Uichi Ikeda, MD, PhD
Yukihiro Hojo, MD, PhD
Kazuyuki Shimada, MD, PhD
Department of Cardiology
Jichi Medical School
Tochigi 329-0498
Japan

Plasma Urokinase Antigen and Plasminogen Activator Inhibitor-1 Antigen Levels Predict Angiographic Coronary Restenosis
Uichi Ikeda, Yukihiro Hojo and Kazuyuki Shimada

Circulation. 2000;102:e167
doi: 10.1161/01.CIR.102.20.e167

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://circ.ahajournals.org/content/102/20/e167

Permissions: Requests for permissions to reproduce figures, tables, or portions of articles originally published in Circulation can be obtained via RightsLink, a service of the Copyright Clearance Center, not the Editorial Office. Once the online version of the published article for which permission is being requested is located, click Request Permissions in the middle column of the Web page under Services. Further information about this process is available in the Permissions and Rights Question and Answer document.

Reprints: Information about reprints can be found online at:
http://www.lww.com/reprints

Subscriptions: Information about subscribing to Circulation is online at:
http://circ.ahajournals.org//subscriptions/