

Prevention of Restenosis after Percutaneous Coronary Intervention: The Continuing Challenge

V Y T Lim,**MB ChB, MRCP (UK)*, C N S Chan,***FAMS, FACC, FRCP*

Abstract

Percutaneous coronary intervention with angioplasty and stenting is well established in the treatment of coronary artery disease. However, the many advances in technique and equipment over the last couple of decades have yet to significantly reduce the incidence of restenosis. This Achilles' heel has necessitated frequent re-interventions and also introduced a new iatrogenic disease of in-stent restenosis. Brachytherapy and coated stents may be the answer to this difficult problem. Many papers have been published in the last few years on these two new modalities of treatment, and we review the evidence available so far. Early results show that brachytherapy significantly reduce the incidence of restenosis when used in restenotic lesions, and coated stents significantly reduce restenosis in de novo lesions. This early promise of brachytherapy and coated stents, if confirmed in longer-term studies, will represent a breakthrough in the battle against restenosis and may dramatically change the practice of interventional cardiology in the near future.

Ann Acad Med Singapore 2002; 31:102-6

Key words: Angioplasty, Brachytherapy, Restenosis, Stent

* Registrar

** Senior Consultant and Director of Cardiovascular Laboratory
Department of Cardiology
National Heart Centre, Singapore

Address for Reprints: Associate Professor Charles Chan, Department of Cardiology, National Heart Centre, Mistri Wing, 17 Third Hospital Avenue, Singapore 168752.