Mini-symposium

Treating multivessel disease in the era of coated stents: introduction

Numerous reports in cardiology congresses and journals deal with multivessel treatment with percutaneous transluminal coronary angioplasty (PTCA) and stenting. Clinical practice, however, is very different with more than 90% of all percutaneous revascularisation procedures in Europe and the USA limited to single vessel treatment. Even when performed in patients with multivessel disease, PTCA is often only performed in one vessel. In unstable syndromes intervention may be limited to the treatment of the culprit lesion and the more complete surgical or percutaneous revascularisation is postponed to a different session. With the introduction of coronary stents and the use of powerful inhibitors of platelet function the technique of angioplasty has reached a mature phase. Immediate technical success can be achieved in patients with multivessel disease with a low rate of complications, with the notable exception of chronic total occlusion. The presence of diffuse distal disease is also a technical challenge that is, however, equally important for surgeons and interventional cardiologists.

The fear of restenosis and the high cost, duration and technical complexity of multivessel procedures are the driving factors that force most interventionalists to deny percutaneous treatment to these

patients. Drug eluting stents and in particular stents with gradual local release of sirolimus and paclitaxel have been shown in many trials and in relatively simple lesion subsets to substantially lower and practically eliminate restenosis.¹⁻⁵ Long term angiographic and clinical follow up after one year with paclitaxel coated and after three years with sirolimus coated stents have shown the absence of clinical recurrence and angiographic restenosis.⁶ These stents, therefore, may have a great impact in the way percutaneous interventions are performed in patients with multivessel disease. Due to the extremely low systemic dose, implantation of multiple stents does not appear to be a limitation and all these stents have been shown to be safe if overlapping is required to treat long lesions. In all the studies using drug eluting stents, multivessel treatment was specifically considered an exclusion criteria and no data are yet available on the use of drug eluting stents for multivessel lesion treatment.

This mini-symposium is opened by an original study which reports the procedural and six months follow up results in 486 consecutive patients treated in Milan with sirolimus eluting stents. The rationale and design of the two only ongoing trials with drug eluting stents for multivessel disease (ARTS II

and CARDia) are presented by the Rotterdam and Hammersmith groups.

C Di Mario, G Mikhail,
Royal Brompton & Harefield NHS Trust,
London, UK

Correspondence to: Professor Carlo di Mario,
Royal Brompton & Harefield NHS Trust, Sydney
Street, London SW3 6NP, UK;
r.wall@rbh.nthames.nhs.uk

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