

## Coronary angioplasty after the age of 80 — why not dust where the dust is?

See page 1791 for the article to which this Editorial refers

Coronary heart disease and old age are all but synonymous. Hence, the paper by Kähler *et al.* is pertinent and deserves full attention<sup>[1]</sup>. The authors prospectively analysed two groups of patients undergoing coronary angioplasty in terms of their subsequent quality of life. The groups differed mainly regarding their age. There was a group of octogenarians (mean age 83 years) and a group excluding octogenarians (mean age 62 years). Although the initial procedural success was significantly inferior in the elderly (88% vs 97%), the improvement in quality of life was comparable, and in some points even superior in the elderly. This reflects the fact that octogenarians started from a more symptomatic state and were less likely to remain symptomatic because of their reduced physical activity. Overall, the results seemed to justify the efforts invested in these people. On the other hand, a general recommendation to use angioplasty more often in the elderly cannot be derived from this study because the patients were preselected and referred for the procedure.

The title announcing information about quality of life and costs is somewhat ambitious regarding costs. The quality of life assessment, on the other hand, is fairly detailed and accurate. It shows that elderly patients seem pleased with what they gain by undergoing coronary angioplasty. This corroborates findings at our centre when mid-term patient satisfaction in elderlies was compared after coronary angioplasty or coronary artery bypass surgery<sup>[2]</sup>.

The patients reported by Kähler *et al.* were specifically referred for angioplasty. It is assumed that most came from home. On average, they spent 5 days in hospital, which must have been due to hospital policies rather than medical need. Only three minor complications occurred, so that in most patients one night in hospital would probably have sufficed. Staying at home and suffering from non-invasively treated angina would have cost but a fraction of the hospital bills accrued over almost a week in the patients reported. Therefore, cost-efficiency would be difficult to prove based on the data presented. The striking paucity of complications during the hospital stay and during the observed 6 months of follow-up may be credited to patient selection, skilful care, but

probably also to chance. Twelve percent of angioplasty attempts failed but, notwithstanding, even these patients apparently fared well for the next 6 months.

The prevalence of coronary artery disease in octogenarians is high (more than 20%). It accounts for a quarter of their morbidity and more than half of their mortality<sup>[3]</sup>. Of the old patients accepted for a diagnostic coronary angiogram because of suspected or previously documented coronary artery disease at our centre, about 40% subsequently underwent angioplasty (almost invariably in the same session) and 30% were sent for bypass surgery. The remainder were kept on medical therapy only. About 5% unexpectedly were found to have no significant coronary artery disease.

Event-free survival after coronary angioplasty depends on the degree of revascularization. Only with successful complete revascularization, can angioplasty rival coronary bypass surgery<sup>[4]</sup>. It may be hoped that judicious use of coronary stents may improve the completeness of revascularization achieved in these patients. That stenting can be performed safely in elderly patients has been documented<sup>[5]</sup>.

As about two thirds of patients do well after balloon angioplasty without stenting, there is no need to stent every patient, let alone every lesion. Stenting rates of 90%, as reported by Kähler *et al.*, seem too generous. A stenting rate of about 70% would seem more accurate and cost-efficient.

In spite of encouraging reports such as the one discussed, the threshold for a diagnostic coronary angiogram in the elderly should remain high. In these patients, angioplasty is selected more readily than bypass surgery because of the inherent comorbidity portending a high surgical risk. However, patients with advanced disease fare better with surgery than with angioplasty<sup>[6]</sup>. In less advanced disease and in patients who are poor surgical candidates for other reasons, angioplasty yields acceptable long-term results with low initial mortality and morbidity. In selected cases, the prognosis of patients after angioplasty even matches that of age-matched controls<sup>[7]</sup>.

In geriatric medicine, rapid mobilization and hospital discharge are more important than long-term improvement. This speaks in favour of performing

angioplasty on only the culprit lesions in selected cases.

Coronary angioplasty in old patients harbours a high clinical potential and is of significant epidemiological and economic relevance. It offers a tool for rapid symptom relief to physicians taking care of old patients. Conversely, it also offers a tool for cost containment in managed care. Unfortunately, cost cannot be curbed by using coronary angioplasty but rather by not using it. It depends on our welfare and our willingness to invest in medical care whether this procedure will be offered to patients even at advanced age or whether it will fall victim to medical rationing threatening at our doorsteps. Disregarding the expense it is undisputedly a blessing for the ones in need.

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## References

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