Invasive Cardiology: Effectiveness, Cost and Prospects?

During the last twenty-five years there has been extraordinary progress in the field of invasive cardiology, as well as indisputable improvement in the clinical results regarding the treatment of heart diseases, and especially of ischaemic heart disease.

Coronary angioplasty, first alone and subsequently with the use of a variety of stents, has been evaluated in a significant number of clinical studies and compared with the surgical method of coronary artery bypass grafting; the conclusions are summarised in the current guidelines. However, our experience is adding up, shedding a clearer light on the clinical benefits, the main indications, as well as the related problems. At the same time, the question of cost must be taken into account.

Many evaluations have shown encouraging results with regard to cost-effectiveness, as long as the choices made by invasive cardiologists follow the guidelines and the material cost of the angioplasty procedure is reasonable. Unfortunately, the latter does not always apply, since there are significant variations in the prices of stents from one country to another.

However, apart from coronary angioplasty, invasive cardiology — not including here cardiac electrophysiology — is moving on to new and important applications. In recent years, it has been gaining ground, and at the same time our confidence, in aortic valvuloplasty and transarterial or transapical aortic valve replacement. Here again, patient selection plays a primary role, not only in clinical outcome, but also in terms of cost-effectiveness. The technique is expected to find wider application as the materials, mainly catheters, decrease further in size, our experience grows, and the number of eligible patients increases.

It is right and inevitable, as the population ages and the mean life expectancy continues to increase, that
transcatheter aortic valve replacement or mitral valve repair will gain ground.

Such a development raises specific questions related not only to the cost and the willingness or ability of healthcare providers to cover the procedure, but more to the capability and flexibility of the laboratories to respond. Do we have available laboratories that can cover the requirements of invasive cardiology, including electrophysiology? I think that many countries do not.

There is a clear need for more laboratories, for an increase in specialised physicians, for better training, and of course, better remuneration for all those who expend huge amounts of energy and spend their lives in the laboratory to expand their knowledge and apply the latest techniques. Invasive cardiology is undoubtedly advancing. Governments must realise that they should respond to the need for funding, so that the ageing population will have recourse to these newest means of therapy.

Yours faithfully,

Panos E. Vardas, MD, PhD

Professor of Cardiology

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