TIMING OF OPERATION FOR CHRONIC SEVERE AORTIC REGURGITATION*

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The indication for aortic valve replacement in chronic severe aortic regurgitation poses different problems. In symptomatic patients the operation offers better results than medical treatment alone[1], so that in general there are no doubts about surgical indication once a patient develops more than trivial symptoms. Rather, in these cases the problem is of a prognostic nature: which patients will probably have an excellent postoperative recovery and which others might have a worse outcome? Today this is not a very difficult question, since we possess quite accurate predictive criteria based on both invasive and noninvasive evaluation of left ventricular function[1-6]. In asymptomatic (or midly symptomatic) patients, on the contrary the problem is of decisional nature: if and when aortic valve replacement is indicated. This is a more difficult task and will be the main theme of this paper.

If we consider the natural history of chronic severe aortic incompetence under the presence or not of symptoms and of left ventricular functional status**, we can schematically identify three models of evolution[7,8]:

- left ventricular function becomes impaired yet the patient remains asymptomatic for a certain period of time (Figure 1A);
- symptoms appear in coincidence with left ventricular dysfunction (Figure 1B);
- symptoms appear yet left ventricular function remains normal for

*Pre-arranged intervention on the paper "Evaluation of Left Ventricular Function as Indication of Aortic Valve Surgery" presented by G. Mattioli et al.
a certain period of time (Figure 1C). So one would argue that symptoms are angina or syncope rather than dyspnea or fatigue (see footnote).

As stated before, there is a general agreement as to recommend surgery for all patients who develop significant symptoms, even when left ventricular function remains normal[8]. Some doubts are raised only for patients at the opposite end of the spectrum, those with extremely severe left ventricular dysfunction, for whom the operation might be useless or even harmful[1].

On the contrary, there are contrasting attitudes towards asymptomatic patients. The most aggressive is that of a minority of investigators who recommend "prophylactic" aortic valve replacement for all patients with relevant aortic regurgitation, including the asymptomatic ones with normal left ventricular function[9]. This drastic attitude has been recently well confuted[10] and will not be discussed further here. The real controversy is the one among those...