standard' for the assessment of the early results of percutaneous mitral commissurotomy, especially when a transseptal approach is used with its inherent risk of inter-atrial shunt[6].

Finally, the problem of cost is addressed in this study. Overall, we should remember that the duration of hospitalization was short (24 h) and that re-use of balloons is commonplace in developing countries. In fact, the comparison of costs in the present study is a comparison of the balloons used rather than the technique itself, with an advantage in favour of polyurethane balloons over the Inoue balloon.

This study therefore demonstrates excellent results obtained using percutaneous mitral commissurotomy in a country where rheumatic heart disease is endemic, where the patients are numerous, with favourable clinical and anatomical characteristics, and where the operators are able to perform a large number of procedures and thereby acquire a high level of expertise. This situation is, of course, the ideal field of application and can be achieved provided the means exist. Finally, the series of Dr Bahl is an important contribution to the literature concerning the retrograde technique. The study does not demonstrate the superiority of the retrograde technique over the antegrade approach, but suggests that the two approaches can be complementary, particularly in technically difficult cases.

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References


The absence of ventricular premature beats on a Holter is like a normal sedimentation rate

See page 1787 for the article to which this Editorial refers

Hedblad et al[1] report in this issue on the increased mortality from ischaemic heart disease (hazard ratio 3.0, 95% CI 1.7-5.2) during a 10-year follow-up of a cohort of 456 men aged 68 years (men born in 1914 in Malmö, Sweden) who had frequent or complex ventricular arrhythmias detected on a 24-h ambulatory (Holter) ECG recording. The increased mortality risk persisted after adjustment for history of coronary heart disease, traditional risk factors, and cardiovascular therapy. One question raised by this study is whether ventricular arrhythmias are a marker for silent ischaemic heart disease in elderly men.

Detection of silent myocardial ischaemia gained popularity in the mid-1980s when there was particular focus on asymptomatic ST segment depression on Holter recordings. For the most part, these studies involved patients with established coronary disease, with the clinical significance of asymptomatic ST segment depression directly related to the proximity of the recording of an acute coronary event. When we studied cardiac patients 2 months or more after an acute coronary event, Holter-recorded ST segment depression had no prognostic value[2].

In the setting of acute and chronic coronary disease, ventricular premature beat frequency and complexity are associated with an increased risk of recurrent coronary events and death[3-4]. However, the risk posed by these ectopic beats are of borderline significance when compared to the risk associated with cardiac symptoms (advanced New York Heart Association class) or signs (ejection fraction <0.40) of...
left ventricular dysfunction[3]. Several studies have shown that ventricular premature beats are common in patients with left ventricular hypertrophy, probably as a result of scar or ischaemia. Unfortunately, a baseline 12-lead ECG was not recorded in the Malmö cohort, so left ventricular hypertrophy by voltage was not included in the analysis.

The Malmö group found that in addition to the risk posed by ventricular premature beats, asymptomatic ST segment depression (bipolar Holter leads in the V2 and V6 locations) also contributed independent risk. However, there was no interaction between these two factors with the risk of subsequent ischaemic heart disease events, simply the product of the two individual risks. It should be noted that the rate of ischaemic heart disease mortality associated with ventricular premature beats in the absence of coronary heart disease was quite low in this older population, with an event rate of 8% at 5 years and 15% at 10 years. Thus, the presence of ventricular premature beats in this elderly population had a low positive predictive value for identifying patients likely to die from coronary disease. However, the absence of ventricular premature beats was associated with a very low ischaemic heart disease event rate, approximately 5% in 10 years.

It is unclear how best to classify and categorize ventricular premature beats on a 24-h Holter. The Malmö group used the five-grade ordinal Lown classification scheme[5]. 'Frequent ventricular arrhythmias' were defined as ≥30 ventricular premature beats per hour, and 'complex ventricular arrhythmias' included the presence of multiform, bigeminal, trigeminal, repetitive, or early cycle R-on-T ventricular ectopics. This classification scheme is somewhat outdated, and it does not permit an analysis of arrhythmic risk as a function of the continuous distribution of ventricular ectopic beat frequency. The dichotomy at 30 ventricular premature beats per hour may not be an optimal cut point[4]. Furthermore, there is no evidence that bigeminal ectopics and repetitive ventricular ectopics should be equated as having equal risk. Rather, the available data indicate that repetitive ectopics (three or more ectopics in a row) having a non-sustained (≤30 beats in a row) or sustained (>30 beats in a row) ventricular tachycardia pattern are especially ominous[4] when recorded in patients with coronary heart disease.

What is the message to be learnt from the Hedblad et al. article? I believe it is the reciprocal of what authors conclude. That is, their data show that in overtly healthy elderly men, the absence of frequent or complex ventricular arrhythmias has a high negative predictive value for it is associated with an excellent, long-term, ischaemic heart disease-free survival. In a sense, the absence of ventricular ectopy on a 24-h Holter recording is like a normal sedimentation rate, i.e. it is a good screen for excluding various types of heart disease, and furthermore, it indicates a favourable long-term prognosis.

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References