developing dyspnoea and congestive heart failure, underwent mitral valve replacement for severe mitral regurgitation. This case report warrants attention in that the duration of anorectic treatment was short and the dosages administered were half of the standard. Furthermore, although patients who manifest valvulopathy typically develop symptoms within months of exposure, symptoms occurred in this patient 2 years after discontinuation of the drugs, which later led to mitral valve replacement.

Therefore all patients who develop mitral valvulopathy following the use of anorectic agents require long-term clinical and echocardiographic follow-up. Although, according to Silvestry and St. John Sutton[1], the majority of patients have mild rather than severe mitral regurgitation and there is no evidence of progressive deterioration after cessation of use of anorectic agents, there are exceptions[9].

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References


Natriuretic peptides in the evaluation of suspected heart failure: studies in primary care are needed

The algorithm for the diagnosis of heart failure incorporating natriuretic peptide measurement and echocardiography, suggested by Dr Struthers in his recent editorial[6], is both intuitive and appealing. Such diagnostic algorithms will continue to evolve, and have an important place in primary care where most heart failure is diagnosed and treated. However, we would argue that the current data is insufficient to recommend current use of such an algorithm, particularly in the group of patients with heart failure and preserved systolic function (or true ‘diastolic dysfunction’).

Natriuretic peptide levels reflect abnormalities of both left ventricular systolic and diastolic function. However, most of the data relating to natriuretic peptides is derived from selected patient groups with predominately left ventricular systolic impairment[2–4]. In these patient groups natriuretic peptides perform well in selecting patients for further description of left ventricular systolic impairment, usually with echocardiography. However, the current data do not support the recommendation for the widespread use of natriuretic peptides to aid identification of patients who may have heart failure with preserved systolic function (or true ‘diastolic dysfunction’). There are several problems with this arm of the proposed algorithm:

1. Firstly, symptomatic heart failure with preserved systolic function appears to represent a significant proportion of patients presenting with heart failure in primary care: up to 40% in some studies[5]. There is a paucity of data regarding the natriuretic peptide levels in such patients. Only one study has reported natriuretic peptide levels in patients with preserved systolic function[6] while other studies have either involved patients with systolic impairment or those who do not have heart failure. Studies need to be performed in primary care to determine the sensitivity and specificity of the natriuretic peptides in the patients presenting to general practitioners.

2. Secondly, heart failure with preserved systolic function appears more common with increasing age[5]. Separating the extent to which natriuretic peptide elevation is due to age rather than to diastolic abnormalities becomes difficult. In addition, other cardiac disorders, cardiac medications and renal impairment may limit the discriminating value of natriuretic peptides in the elderly[7].

3. Thirdly, the algorithm suggests that echocardiography can reliably identify diastolic dysfunction. Recommended echocardiographic criteria[8] although comprehensive, may be over-inclusive. Additionally there are confounding factors in practice, such as atrial fibrillation, which may limit the non-invasive assessment of diastolic dysfunction.

The next phase of assessment of natriuretic peptide measurement as a diagnostic test for heart failure must now be undertaken: the use of natriuretic peptides by general practitioners on a consecutive, unselected cohort of symptomatic patients recruited from the community. This cohort must include elderly people, those with other cardiovascular disorders and on medications, in whom the discriminative value of natriuretic peptide testing is the lowest. It would also include patients with heart failure with preserved systolic function. Ideally, the use of natriuretic peptide testing in primary care should be in the context of a randomised controlled trial, so that the benefit of natriuretic peptide measurement can be assessed in the context of the diagnostic tools currently available to GPs: history, examination, ECG and response to treatment.

Evidence from such a prospective, randomised controlled trial in the community will permit development of a truly evidence-based algorithm for the approach to breathless patients in primary care.

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References