Spondylitis and Aortic Regurgitation

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Many patients with ankylosing spondylitis have aortic regurgitation: this study makes the case for routine echocardiography evaluation.


This study of 187 patients with ankylosing spondylitis (AS) in Western Sweden found 34 patients (18%) with aortic regurgitation (AR), although only 1 had severe disease. The authors recommend that AS patients be routinely evaluated with echocardiography. They also found 25 patients (13%) with conduction abnormalities. The authors recommend that AS patients be routinely evaluated with electrocardiography as well. Patients with AR were twice as likely to have conduction system abnormalities. This prevalence of AR was significantly higher than that found in normal populations. However, the prevalence of coronary artery disease was not significantly higher than normal populations. Nor was there an increase in clinically significant regurgitation in the other 3 valves. AR was associated with age, disease duration, and severity. AR increased from **20% in the 50s to 55% in the 70s.**

The HLA B27 antigen showed no association with AR. The authors used transthoracic echocardiography. Transesophageal echocardiography gives excellent imaging of the heart, but is not suitable for clinical screening of AS patients, because of the increased risks in patients with stiff necks, esophageal disorders, and poor pulmonary function. The authors see a plausible mechanism for AR in AS. The attachment of the aortic cusps in the heart, with their central tendon-like fibrous core, shows some resemblance to entheses. The ciliary body of the eye is also a location of attachment, with the lens suspended in fibrous ligaments. These regions are all subject to mechanical stress.

There is a danger of misdiagnosing the symptoms of dyspnea, reduced physical capacity, and fatigue and attributing them to the patient's rheumatic disease, the authors say. With a correct diagnosis, symptomatic AR can be successfully treated with surgery and conduction system abnormalities can be treated by pacemaker implantation.

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