

## **Axial spondyloarthritis in relatives of probands with Ankylosing Spondylitis.**

### **Comment on the article by Turina et al**

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**To the Editor:**

Turina *et al* (1) report a prospective inception cohort study of 51 seemingly healthy first-degree relatives (aged 18-40 years) of 36 HLA-B27 positive probands with ankylosing spondylitis (AS). Seventeen of these 51 (33%) first-degree relatives had clinical and/or imaging abnormalities suggestive of spondyloarthritis (SpA). HLA-B27 was present in only 8 of these 17 (47%) relatives with SpA, not different from the 53% prevalence among the remaining 34 relatives without SpA. Moreover, they report that axial SpA by the ASAS classification criteria (2) was present in 5 of 26 (19%) HLA-B27 *positive* relatives and in 4 of 25 (16%) HLA-B27 *negative* relatives. This almost equal proportion contrasts sharply with the findings of an earlier publication with a somewhat similar title ("spondylitic disease without radiologic evidence of sacroiliitis in relatives of HLA-B27 positive ankylosing spondylitis patients") (3). Turina *et al* (1) overlooked to cite this very relevant paper that was published in this very esteemed journal 32 years ago, in which we reported strong association of HLA-B27 with "spondylitis disease without radiographic sacroiliitis" (now can be called non-radiographic axial spondyloarthritis, or pre-spondyloarthritis) among HLA-B27 *positive*, but not HLA-B27 *negative* first-degree relatives of HLA-B27 positive patients with AS (3). The findings of Turina *et al* (1) also contrast with what the authors state in their article: "Previous studies have shown that SpA mainly manifests in HLA-B27 positive first-degree relatives".

How to explain this surprising finding of about equal proportions of axial SpA in HLA-B27 positive and HLA-B27 negative relatives? (1). Two possibilities come to mind. *First*, their pre-spondyloarthritis cohort contains clinical entities that do not progress to full-blown axial SpA/AS (by modified New York criteria (4)) in HLA-B27 *negative* first-degree relatives, implying that the current ASAS classification criteria for axial SpA seem to lack criterion validity because they do not show a strong biologic relationship with AS (5). A *second* explanation, in line with other findings, would be that current ASAS axial SpA criteria may pick up some 'look-alike' *nonspecific back pain* conditions and false-positively label them as axial SpA (5,6).

In an accompanying editorial, Sari and Haroon (7) have very nicely critiqued other aspects of the pre-spondyloarthritis cohort study by Turina *et al* (1), and have also pointed out factors needing consideration in data interpretation and future analysis of the cohort.

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