The rates of alcohol-related deaths from accidents and violence in subjects with ankylosing spondylitis and rheumatoid arthritis

Sir, Myllykangas-Luosjärvi et al. [1] reported that people with ankylosing spondylitis (AS) suffer high rates of alcohol-related deaths from accidents and violence, and that people with rheumatoid arthritis (RA) experience significantly low rates of such deaths. I should like to offer an explanation for both.

It is well established that steroid hormone levels are altered in patients with RA and with AS. In particular, testosterone is low in RA [2] and high in AS [3].

One would expect the differing testosterone levels in these two classes of patients to be associated with differing personalities. Ellis [4] documented that within the human, and other mammalian, species, varying testosterone levels are causally associated with risk-taking behaviour of varying degrees. Arnett [5] reviewed the literature and found that risk-taking behaviours (dangerous driving, variety of sexual experience, drug use and minor criminality) all correlate. Daitzman and Zuckerman [6] devised a scale for such behaviour and found that scores on it correlate positively with testosterone levels in men and women.

There is a substantial literature on the personality of RA patients (timid, depressed, etc.). I suggest that this is partially caused by their low testosterone, and predates disease onset. Analogously, and because of their high testosterone levels, I suggest that there is a contrasting AS personality (aggressive, risk-taking, macho, etc.). Kemper [7] has summarized the pervasive effects of testosterone on human personality and behaviour. I suggest that it is the cause of the differing violence-related death rates of patients with AS and RA.

W. H. James

The Galton Laboratory, University College London, Wolfson House, 4 Stephenson Way, London NW1 2HE, UK

Accepted 17 September 1998