

# RESEARCH ROUND-UP

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In the past three years the British Society for Rheumatology has accorded psoriatic arthritis an enhanced research priority and this is beginning to bear fruit in the form of research papers in increasing numbers. At the Twentieth Annual Meeting of the British Society for Rheumatology in Manchester in April last year there was a sufficient number of papers to justify dividing them into two groups, those on genetic research and those on clinical research. The following is an attempt to summarise a selection of the papers presented.

## GENETIC RESEARCH

Myers and others from the Rheumatology Department of University of Newcastle-upon-Tyne and its associated hospitals, presented interesting data on the predominance of female siblings of subjects with psoriatic arthritis. It has been known for some time that there is a disturbance in the sex ratio in the families of individuals with auto-immune disorders related to HLA types. It was known that, in those diseases which are commoner in the female sex, the greater the number of sisters in a family the more likely one of them is to have the condition. The Newcastle Group looked specifically at psoriatic arthritis, a condition where men and women are roughly equally affected. They analysed data accumulated over a period of fifteen years in which they studied eighty sets of siblings and found that even though there were more men with psoriatic arthritis overall, there was nevertheless a preponderance of sisters among their families. This suggests the parents passing on the genes for auto-immune arthritis of this kind are more likely to have female children. In a previous issue of Research Round-Up we quoted another paper on this general topic which showed that men with

psoriatic arthritis are more likely to pass on their disease to the next generation than are women with the condition. The precise explanation of these interesting findings is as yet uncertain.

The same study group looked at the various tissue types which have a relationship to psoriasis and the accompanying arthritis, namely CW6, B27, B38, B39, DR4 and D7. CW6 is well known to be associated with psoriasis and B27 with the version of psoriatic arthropathy which includes spinal involvement. B38 and B39 have been shown previously in studies by Gladman in Toronto, to have some prognostic significance for peripheral-type arthritis of the hands and feet particularly. This new study suggests that the presence of the tissue HLA DR4 in a patient with psoriasis and inflammatory arthritis makes the pattern of the arthritis likely to be more closely similar to that found in rheumatoid arthritis which, bearing in mind the effect that DR4 has on the severity of rheumatoid arthritis, makes quite good sense.

Kane and others from the Department of Rheumatology, St Vincent's University Hospital, Dublin, and the Department of Genetics of Trinity College, Dublin report some very interesting studies on the variability of gene functions related to TNF- $\alpha$ -308 and TNF- $\beta$ +252. They showed that individuals showing TNF- $\alpha$ -308 and TNF- $\beta$ -B1 patterns showed a significant association with the age of onset of the psoriasis. Also the presence of joint erosions on x-rays, but not new bone formation, was significantly associated with the presence of TNF- $\alpha$ -308 and TNF- $\beta$ -B1 and was associated with these erosions progressing more than in other individuals over the period of the study. With the accumulating evidence of the efficacy of anti-TNF biological agents in psoriatic

arthropathy, these findings are of particular interest.

A combined study from the Royal National Hospital for Rheumatic Diseases, Bath, and Imperial College of Science & Medicine, London, parallels somewhat the work on TNF- $\alpha$  reported above but refers to interleukin 1 and the interleukin 1 receptor gene and its variations in individuals with psoriatic arthritis. The interleukins are the mostly inflammatory molecules which are largely under the control of TNF- $\alpha$  and the pharmaceutical industry is now marketing biological agents to suppress the effects of individual interleukins of which there are now more than a dozen discovered. Certain variations, or polymorphisms as they are termed technically, of the gene controlling interleukin 1 were found to have an association with the presence of psoriatic arthritis compared with control subjects. It is probably too early to say what therapeutic significance this may have in the long run. In another paper the same group showed that a rare TNF- $\alpha$  version was significantly more commonly detected in patients with large numbers of joints involved than in other forms of the condition. The study involved 138 psoriatic arthritis patients and 235 controls, so that the conclusions drawn may well be of clinical as well as purely statistical significance, but have no application to treatment as yet.

## CLINICAL RESEARCH

We sometimes refer to psoriatic arthritis as "sine psoriasis", which is simply the use of Latin to say that now and again one comes across patients who have psoriatic arthritis but who do not themselves have psoriasis. This has always been a problem group because the usual definitions of psoriatic arthritis require the presence of psoriasis for the diagnosis to be secure. Scarpa & others of the Clinical Experimental Medicine, Immuno-Haematology & Dermatology Departments of the Federico II University, Naples University, studied the family backgrounds and immuno-genetics of patients with sero-negative spondylarthropathy defined

according to standard European criteria and found that those with a positive family history of psoriasis in first or second degree relatives, who also showed arthritis of the end joints of the fingers and swollen "cocktail sausage toes" and who also were of the HLA CW6 tissue type best identified those with psoriatic arthritis sine psoriasis. J S Lewis & others, in a collaborative study from the Royal National Hospital for Rheumatic Diseases, Bath, the Department of Dermatology, Royal United Hospital, Bath, and Department of Medical Sciences, University of Bath, looked at 81 patients with psoriasis attending a Dermatology Outpatient Department who were thought to be free of arthritis. Roughly half of these turned out, on rheumatological full assessment, including x-rays, to have psoriatic arthropathy of some type. This

does, as they comment, have implications for clinical practice and genetic studies. It would seem to me to have a particular message for rheumatologists and dermatologists that they should work in close collaboration in treating the whole patient.

Finally, in How do We Treat Psoriatic Monarthritis? – Makadsi and Harrison, Department of Rheumatology, North Manchester General Hospital, performed a postal survey on the management of patients with a single swollen, inflamed joint in the presence of psoriasis with particular reference to the treatment used. All rheumatologists in the NW Deanery of the UK were surveyed. Of the 32 replies received, 78% used disease-modifying drugs, methotrexate and sulphasalazine equally, systemic steroids were rarely, if ever, used,

50% referred patients for surgical synovectomy, usually performed through the arthroscope, 7 used the alternative with radio-active yttrium which can only be provided in centres with a nuclear medicine facility and 19% employed intra-articular methotrexate. Having advocated this on the basis of a small-scale study in 1985, using it in combination with triamcinolone hexacetonide, it would have been interesting to know whether the methotrexate was used on its own or in combination. There would appear to be an opportunity for a larger nationwide study with uniform outcome measures. The decision as to which method of treatment to use might well depend upon whether treatment was directed at the first presentation of a monarthritis or in recurrences.

## YORKTEST

Food intolerance has a mixed and sometimes dubious reputation amongst the medical profession. It is a controversial subject and as a result many doctors are reluctant to accept it as a medical illness or are reluctant to accept methods used to test for food intolerance.

Food intolerance is an area, which has been left prey to many tests that are not scientifically proven. Desperate for explanations to their symptoms many people spend hundreds of pounds each year on tests, which are unlikely to help them. Desperate for an answer people are happy that at last someone seems to be taking their symptoms seriously.

**YORKTEST** Laboratories uses a two-stage process designed to test for food intolerances. The first stage is a simple pin prick method used to obtain a sample of blood - this can be carried out by the patient in the comfort of

their own home. This first indicator is laboratory tested using the scientifically proven test, ELISA, and measures a symptomatic person's IgG antibody response to a mixture of the most commonly encountered food allergens. A positive result indicates that further testing is warranted. **YORKTEST** Laboratories can then detect and measure IgG antibodies to specific food allergen extracts. In conjunction with qualified nutritionists, a food elimination diet is then advised which has been proven to be beneficial to many patients.

According to Allergy UK, around 45 per cent of people suffer adverse reactions to food, and four out of five people who take the test and adhere to their dietary recommendations see a significant improvement in their health.

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