Novel anti-rheumatic therapies challenge old views on ankylosing spondylitis and other spondyloarthritides

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If no effective therapy is available (especially for a chronic, disabling disease), medicine is not only quite restricted in its medical possibilities but, if this remains so for longer periods of time, the attitude of health care workers and patients develops to a state of tolerance. This is characterised by the acceptance of higher levels of pain and functional disability by both patients and health care workers. Differentiated coping strategies may help patients to develop increased thresholds for pain and discomfort. However, the quality of life of such patients usually remains rather compromised. Similarly, physicians tend to more easily accept patients' discomfort and reports on pain and disability without feeling the need to change something because nothing straightforward is available. If nothing new comes up for decades there may also be an influence on scientists who could become less interested in studying a disease which has been chronic and resistant to treatment forever anyway.

The experienced rheumatologist knows already that we are talking about ankylosing spondylitis (AS), the prototype of the spondylarthritides (SpA) - a disease which has been somewhat forgotten by physicians in general, but also by rheumatologists. There are various reasons for this.

1. AS is unduly looked upon as a rare disease.
2. Back pain is the main symptom of AS, but only a very small proportion of the huge number of patients with back pain have AS.
3. With a very early age of disease onset (mean 26 years), a chronic disease is less often considered in a primary care setting.
4. It has remained difficult to diagnose AS for decades, particularly early in the course (5-7 years delay in diagnosis, even worse for women).
5. In contrast to rheumatoid arthritis, AS cannot be easily recognized by health workers at the physical examination (no swollen joints in most patients).
6. Inflammatory back pain often shows a good symptomatic response to NSAIDs.
7. The course of AS is highly variable, including pain-free intervals and episodes of heavy pain and functional disabilities.
8. AS could not be effectively treated by DCARTs.
9. In several countries AS has been mainly treated in spas, rehabilitation clinics, and by orthopedic surgeons for decades.
10. Many AS patients have stopped consulting rheumatologists because no specific therapy was available.
11. Rheumatologic education for general practitioners and other non-rheumatologists has been limited in many countries, and if present the focus is on rheumatoid arthritis.
12. The burden of illness and the socio-economic consequences of AS have been underestimated for a long period of time.

Interestingly, although it is at least the second most frequent inflammatory rheumatic disease with a burden of disease that is not different from RA, there are 12 times more papers on RA than on AS (Pubmed 1996-2001 on average 2,517 publications on RA and 210 publications on AS per year).

Nevertheless, the times are changing. As stated in the title, new treatment opportunities have recently become available which challenge old views. Treatment with biphosphonates, thalidomide, but mostly anti-TNF agents have shed a different light on the therapy options for AS. For the first time patients experience real improvement and are able to reach a state of low disease activity or remission. This development

has tremendously increased the interest in the disease as such. But besides this, there are also new developments in imaging such as MRI of the spine and SI joints. This might be an important tool in evaluating the efficacy of treatment (which only makes sense if efficacious treatment is available), but could also enhance our knowledge of pathophysiological processes and be an aid in early diagnosis. Together with other important new developments concerning diagnosis, pathophysiology including genetics and immunology, and all epidemiological aspects of AS, we have decided that it would be a good time to bring this information together in this supplement of *Clinical and Experimental Rheumatology* to inform a broad readership about these new developments. The aim was to have a comprehensive overview of present knowledge on AS, with an emphasis on the newest information available.

The main novel aspect for the SpA clearly is therapy and we have invited several groups to participate who have contributed important studies and papers on the treatment of AS and psoriatic arthritis with anti-TNF agents in the last two years. There is limited experience with this treatment for other SpA such as undifferentiated SpA and reactive arthritis – similar to other rare forms of arthritis and related inflammatory conditions. The safety of anti-TNF therapy is an issue of increasing importance which is here covered by an experienced group.

In addition, we have invited several authors to report on conventional aspects of therapy for the different subtypes of SpA. This is important because there are major differences and because a basis is needed to establish which patients are suitable for what kind of treatment. A very recent new aspect of AS therapy was the first controlled study on long-term outcomes of physiotherapy, which is introduced by the group who did the original work. Furthermore, we have invited an orthopedic surgeon to report on the end-stage treatment of AS patients, information not easily available to rheumatologists – a sophisticated surgical procedure in which the spine is re-erected in a better position with the help of screws,metal bars and a lot of technical skill and experience.

Since the SpA are closely related to psoriasis, uveitis and inflammatory bowel disease we thought it important to present overviews on new developments in therapy for these diseases. Little is known of the frequency of organ involvement in AS, but there have been quite a few reports on heart involvement in AS. This aspect is covered by one of us, who took advantage of a close collaboration with a cardiologist who had developed a substantial interest in rheumatology.

Very closely related to therapy is imaging and here, similarly, we have asked two groups with expertise in this field to present their data and cumulative experience, mainly on magnetic resonance imaging.

There are also papers that cover the most recent developments in pathophysiology, including immunologic and genetic aspects of the SpA.

There is a scarcity of papers on long-term outcome and so far none on mortality in AS. Two of us have performed a systematic literature search on these issues and report and discuss what they found.

We hope that our readers enjoy this selection of topics and papers, and that it will contribute to an increased knowledge of AS and related SpA, and also to an increased interest in performing research on this fascinating disease.