which investigated the effects of two years of treatment with etanercept (25 mg twice weekly) on radiographic progression in patients with AS. Cervical and lumbar spine x-rays, performed at baseline and after 2 years, were compared with x-rays from subjects in the Outcome in AS International Study (OASIS) taken in the same time frame. In this study, although clinical findings demonstrate sustained, durable benefits with long-term etanercept therapy, x-ray evaluations suggested that progression of structural damage continued. The results of this study indicate that the effect of etanercept treatment beyond 2 years on progression of structural damage warrants further study.

Dr. Marte Heiberg, Diakonhjemmet Hospital, Oslo, Norway, presented the results of a study that compared the one-year survival rates of TNF-blocking agents in patients with RA, PsA and AS, which showed that anti-TNF+methotrexate (MTX) performed better than anti-TNF monotherapy in patients with RA and PsA. Data from 1168 patients (RA n=796; PsA n=161; AS n=211) who received treatment with TNF-blocking agents were analyzed. Crude overall survival rates for anti-TNF treatment were assessed in a Kaplan-Meier analysis, with adjustments for age, gender and treatment regimen in a Cox regression analysis. RA was used as the reference group. Within each diagnostic group survival rates were compared between anti-TNF monotherapy and TNF+ MTX, adjusting for age and gender.

Crude one-year survival rates for anti-TNF treatment in patients with RA, PsA and AS were 67.1%, 78.3% and 82.1%, respectively ($p<0.001$ for both PsA and AS vs RA). Within the respective groups 65%, 68% and 35% received concomitant MTX. The Relative Risk (95%CI) for withdrawal from TNF+MTX versus anti-TNF monotherapy was 0.54 (0.42, 0.69) in RA patients, 0.49 (0.25, 0.96) in PsA patients, and 0.83 (0.42, 1.62) in AS patients. After adjustments for age, gender, and treatment regimens the survival rates were still superior in patients with AS vs RA, whereas the survival rates were similar in patients with RA and PsA.

Ankylosing spondylitis is the most severe of the diseases that make up the spondyloarthritides (SpA) and new approaches to assessment and treatment have been the subject of much interest over the last few years. Both clinicians and patients stand to benefit from this research.

Spondyloarthritis: State of the Art

The SpA are a group of diseases which includes AS, reactive arthritis, arthritis/spondylitis with inflammatory bowel disease or psoriasis, and undifferentiated spondyloarthritis (*Ann Intern Med.* 2002;136:896–907). As a group, the SpA are one of the most common rheumatic diseases with a prevalence in the general population of 0.5–1.9% (*Rheum Dis.* 2004;63:535–543).

Dr. John Davis, University of California, San Francisco, CA, introduced the term "axial SpA", which he believes perfectly describes the disease continuum consisting of the early phase of spondylitic disease without radiographic sacroiliitis (or axial undifferentiated SpA (uSpA) and the relatively later phase AS).

Common features of these diseases include: enthesopathy, absence of radiographic sacroiliitis, and positive family history. Clinical features include: achilles tendonitis, plantar fasciitis, dactylitis, mononuclear cell infiltration including T-cells & macrophages, increase in inflammatory cytokines including IL-1, IL-6, TNF-α, subchondral bone inflammation and resorption, and periosteal new bone formation.

Dr. Martin Rudwaleit, Charite´- Campus Benjamin Franklin, Berlin, Germany, provided guidelines for use of several of the assessment techniques for SpA. The Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) is the standard instrument used to measure disease activity, while the Bath Ankylosing Spondylitis Functional Index (BASFI) is used to measure physical function. Both are validated patient-reported instruments and Dr. Rudwaleit believes they are appropriate for daily clinical practice, unlike the ASessment in Ankylosing Spondylitis (ASAS) response criteria, which were designed to assess treatment response in clinical trials and are not appropriate for use in individual patient care.

According to Dr. Herman Mielants, University Hospital Gent, Belgium, effective treatment strategies for SpA must go beyond the axial skeleton, joint, and enthesis. It must also have a beneficial effect on the extra-articular targets of the disease, including the skin, eye, gut and urogenital system. He reviewed several treatments.

With an average 60% response rate, NSAIDs are the cornerstone in the treatment of SpA. However, their effect on extra-articular targets is weak and they have been associated with GI side effects. Although COX-2 selective NSAIDs (coxibs) can minimize the stomach ulcers that are associated with traditional NSAIDs, they have no effect on extra-articular manifestations and have potential side effects of their own (eg, stomach upset, diarrhea, abdominal cramps, and headaches). Corticosteroids can act favorably on gut inflammation and locally on the eye, skin and joints but have no effect on axial inflammation. DMARDs (sulfasalazine, methotrexate, leflunomide) have been proven effective for arthritis, tendonitis, and skin involvement, but they have no effect on axial disease or disease progression and generally require regular blood tests to monitor side effects.

Three biologics (infliximab [*Arthritis Rheum.* 2005; 52:582-91], etanercept [*Arthritis Rheum.* 2003; 48: 3230-3236], adalimumab [*Arthritis Rheum.* 2006; 54:2136-2146]) have been approved for the treatment of SpA and all show impressive effects on locomotor and extra-articular manifestations, metrology, and quality of life. Only infliximab and adalimumab produce improvement of gut inflammation in irritable bowel disease. Infliximab significantly reduces the frequency of flares of uveitis (etanercept's effect is less positive and adalimumab's is still unknown). Recent studies show that infliximab also delays structural radiological progression compared with NSAIDs; this has not yet been demonstrated for etanercept or adalimmumab. All are associated with an increased risk of infections (e.g., tuberculosis and opportunistic infections).

The increasing interest in the spondyloarthritides, the availability of validated assessment tools, and the clinical studies being conducted in this population, hold promise for strides in early diagnosis and treatment.

For more information about the BASFI, please visit:
http://www.spondylitis.org/physician_resources/assesment.aspx

PsA Best Practices in 2006

Psoriatic arthritis (PsA) is a serious and progressive disease associated with significant morbidity and mortality. Seventeen percent (17%) of PsA patients have ≥ 5 deformed joints, 40% to 50% deforming arthritis, 20% to 40% spinal involvement, and 11% to 19% are disabled. Defining outcome measures in PsA has been challenging because of the wide spectrum of clinical presentation, perceived low prevalence, and relapsing/remitting cycle. None of the current methods for defining outcome have