other at concentrations of 10, 20 and 50 µg/ml. The low binding of SP in human plasma suggests there is a low potential for a protein binding interaction between A77 1726 and SP over the range of concentrations examined. A clinical study to investigate the pharmacokinetics of A77 1726 and SP in healthy subjects is underway.

THU0194 DIGITAL VASCULITIS IN A PATIENT WITH RHEUMATOID ARTHRITIS: GOOD RESPONSE ON ANTI-TNF BLOCKADE

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Background Rheumatoid arthritis (RA) may be complicated by vasculitis. Vasculitis usually affects small vessels of the skin causing nailfold infarcts, but may also affect larger vessels and cause severe damage to internal organs. In such cases, treatment with high doses of corticosteroids or other immunosuppressive drugs may be necessary. TNF-alpha blockade has been shown to be an effective and safe treatment for RA, but thus far no reports have addressed the effect of TNF-alpha blockade on extra-articular manifestations of RA, such as vasculitis.

Objectives We report a patient with RA and nailfold infarcts which repeatedly disappeared for several weeks following monthly i.v. injections with an anti-TNF alpha receptor fusion protein.

Methods A 46 year old woman was diagnosed as having rheumatoid factor positive, erosive RA in 1982. Due to the uncontrollable disease she was included in 1994 in a study with Ro 45□2081, a fusion protein combining two p55 TNF receptors with the Fc component of an IgG human antibody (Roche, Basel, Switzerland, sTNFR:Fc). After a three months placebo controlled phase she was treated with 50 mg sTNFR:Fc every four weeks.

Results Clinical response was impressive with swollen joint counts decreasing from 32 to 5 and C-reactive protein CRP levels declining from 95 at baseline to 20 after the first injection. Low disease activity was sustained for the following years. Besides sTNFR:Fc her medication consisted of oral prednisone 5 mg a day and occasionally paracetamol 500 mg. In the spring of 1999 she first noticed nailfold infarcts on the fingers of both hands. These lesions disappeared after every injection of sTNFR:Fc and reappeared three weeks thereafter when the clinical effects of sTNFR:Fc were decreasing. This effect on the digital vasculitis has been well documented during several cycles of sTNFR:Fc administration.

Conclusion The prompt disappearance of nailfold infarcts after sTNFR:Fc administration observed in our patient strongly suggests a therapeutic effect of sTNFR:Fc on active vasculitis. This observation raises the question whether blocking of TNF-alpha might also be effective in more severe forms of vasculitis and possibly other extra-articular manifestations of RA, some of which are life threatening and are currently treated with high doses of corticosteroids and immunosuppressive drugs.

THU0195 INTRA-MACHINE AND INTRA-READER AGREEMENT OF RA DISEASE ACTIVITY AND DAMAGE USING MRI. COMPARISON WITH CLINICAL AND LABORATORY MEASURES

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Background Magnetic resonance imaging offers a direct means of evaluating inflammation disease activity and damage in rheumatoid arthritis joints. However, few studies have evaluated intra-machine MRI.¹

Objectives Evaluate the agreement of intra-machine MRI using the OMERACT 5 Rheumatoid Arthritis MRI Score (Om5 RAMRIS)² and compare MRI reliability to clinical and laboratory measures.

Methods 12 subjects with seropositive RA, median disease duration 6 years, were chosen to reflect spectrum of RA severity. MRI was performed at same time of day at baseline and 48 h. All sources of variability were either controlled or measured. A cannula was inserted into the nondominant arm and serum was collected prior to MR for ESR/CRP. The cannula was left insitu for administration of gadolinium (Gd). MRI of wrist was performed with dominant hand splinted in semipronated position alongside the body. Axial and coronal images were obtained pre-Gd using T1, proton density and T2 (FS) sequences. Gadolinium was administered at 0.1 mmol/kg over 90 secs. Post Gd fat suppressed sequences commenced 2 min post injection (axial then coronal). MRI images were read in random order by a single blinded observer using the Om5 RAMRIS. All images were reread in random order at 48 h by same observer. Additional clinical data at baseline and 48 h: HAQ, SF36, 28 swollen and tender joint count (same observer).

Results Intra-machine MRI (ie at baseline and 48 h) intraclass correlation coefficients (ICCs) were lower for all measures of disease activity (synovitis global, synovial maximal thickness and bone oedema) than for lesions of disease damage (bone erosions and bone defects). ICCs of summated wrist activity score for intra-machine MRI were 0.53 – 0.70, whereas intra-reader ICCs were 0.86 and 0.90. However ICCs of summated wrist damage score for intra-machine MRI were 0.89 – 0.96 and for intra-reader were 0.93 and 0.97. Mean (SD) scores at baseline and 48 hrs. ICCs for clinical and laboratory data were: DAS28 = 0.94, HAQ = 0.96, TJC = 0.89, ESR = 0.76, SJC = 0.72 and CRP = 0.55. Mean differences at baseline and 48 hrs for all clinical, laboratory and MRI measures were not statistically significant. Furthermore, none of the differences consistently reflected either an increase or decrease in disease activity. Smallest detectable difference (SDD) for selected measures were as follows: wrist activity ± 35 (50% of score range (SR)), wrist damage ± 18 (15% SR), DAS28 ± .98 (23% SR), HAQ ± .49 (21% SR), SJC ± 5.4 (57%SR), TJC ± 5.2 (35%SR) and CRP ± 10 (71%SR).

Conclusion Intra-reader agreement using the OMERACT 5 Rheumatoid Arthritis MRI Score has excellent intra-reader agreement for the assessment of synovitis, bone oedema, bone erosions and defects. Intra-machine agreement at 48 h was also excellent for bone erosions and defects and the SDD was quite acceptable. Lower ICCs for measures of MRI RA activity probably reflect underlying true variability in disease activity even at 48 h (suggested by variability in CRP), as well as a component of measurement error, (implied by relative stability of DAS28). Thus to disentangle the discrimination (reliability vs responsiveness) of this MRI activity scoring system, it requires further evaluation in a RCT.