Objectives To confirm a hypothesis that ANKENT-triggering agents are intestinal bacteria to identify the ANKENT-triggering strains by technique of controlled association of GF mice.

Methods B10. BR males from a previously established GF colony were oligoassociated with a cocktail of anaerobic bacteria isolated from a diseased CV male. The mice were checked for ANKENT once a week. Lymphocyte phenotype in afflicted as well as healthy males was determined.

Results Oligoassociation with the selected cocktail of bacteria resulted in ANKENT in > 20% of ex-GF males, which corresponds to the situation seen under CV conditions and exceeds the ANKENT incidence in specific-pathogen-free mice.

Conclusion ANKENT-triggering agents are bacteria. The importance of viruses, protozoa and helminths in ANKENT onset can be excluded. Our findings strongly suggest that, similar to other spondylarthropathies, intestinal microflora has a inductive role in ANKENT pathogenesis.

Supported by grant GACR 310/00/1371.

REFERENCE

- 1 Rehakova, et al. *Hum Immunol.* 2000;61:555

SAT0030 RELATIONSHIP BETWEEN DISEASE SEVERITY AND HLA-B27 AT TIME OF DIAGNOSIS IN ANKYLOSING SPONDYLITIS

K Sivrioglu, M Aydogan, S Bayram, J Irdesel, S Kucukoglu, O Ozcan. *Physical Medicine and Rehabilitation, Uludag University Medical Faculty, Bursa, Turkey*

10.1136/annrheumdis-2001.382

Background

Objectives This retrospective study was designed in order to evaluate the relationship between disease severity and HLA-B27 at time of diagnosis in ankylosing spondylitis (AS).

Methods Medical records of patients admitted to the outpatient clinic of Uludag University Medical Faculty, Department of Physical Medicine and Rehabilitation since 1988, who were diagnosed to have AS according to the 1966 New York Criteria were retrospectively reviewed. Forty-four patients were first diagnosed and had HLA-B27 evaluation. Further analysis was performed for this group which constituted the study population including sex, age at onset, disease duration until admission, HLA-B27 status, family history of AS, rheumatic symptoms, morning stiffness duration, presence of arthritis, sacroiliac tests, ESR (mm/hr), CRP (mg/dl), radiographic grade of sacroiliitis, and lumbar flexibility (assessed by Schober's test), lumbar lateral flexion limitation, finger-to-floor distance, occiput-wall distance, chin-to-manubrium distance, chest expansion.

Results Out of the study population (11 female, 33 male; n = 44) with a mean age of 34.5 ± 10.2 years, 35 patients (79.5%) were HLA-B27 (+). Mean age of disease onset was 30.0 ± 9.9 years, and mean time of disease duration until diagnosis was 55.6 ± 47.5 months. Eight patients (13.8%) had a positive family history, 9 (20.5%) had heelpain, 5 (11.4%) had chestpain, 42 (95.5%) had backpain, and 3 (6.8%) had systemic involvement at admission. Radiographic sacroiliitis was found as Grade:2 in 15 patients, Grade:3 in 16 patients, and Grade 4 in 13 patients.

Disease duration until admission was significantly less in HLA-B27 (+) patients compared to B27(-) ones ($p = 0.027$). Duration of morning stiffness was significantly higher ($p = 0.050$), and significantly more B27(+) patients had positive sacroiliac tests ($p = 0.048$). However, physical parameters such as lumbar lateral flexion and chest expansion was significantly

better ($p = 0.003$ and 0.018 , respectively) in B27 (+) patients. No significant difference was observed in other clinical and physical parameters.

Conclusion Our results suggest that B-27(+) AS patients tend to admit earlier with more severe clinical symptoms and signs before the development of physical limitations.

SAT0031 FINE EPITOPE MAPPING OF IMMUNODOMINANT PEPTIDE EPITOPES BY AFFINITY MATRIX TECHNOLOGY USING YERSINIA-HSP60-SPECIFIC SYNOVIAL CD4⁺ T-CELLS IN REACTIVE ARTHRITIS (ReA) PATIENTS

¹A Thiel, ²P Wu, ¹D Stauch, ²M Rudwaleit, ¹A Radbruch, ²J Sieper. ¹Rheumatology, German Rheumatism Research Center; ²Rheumatology, Benjamin Franklin University Hospital, Berlin, Germany

10.1136/annrheumdis-2001.383

Background A T cell response to persistent bacterial antigen is present in patients with reactive arthritis (ReA). A better characterisation of this response might lead to new treatments.

Objectives To identify immunodominant Yer-hsp60-derived CD4 T cell epitopes in Yersinia-induced reactive arthritis (ReA).

Methods In two patients with Yersinia-induced ReA synovial fluid (SF) T cell response were first investigated after *in vitro* stimulation with the Yersinia-derived protein hsp60. Fixed cells were stained with antibodies against CD4, CD8, CD69 and against the cytokine IFN γ . Patients with reacting CD4⁺ Th cells were retested and live IFN γ -secreting cells were isolated with the affinity matrix technology after short term stimulation with Yer-hsp60. Cells were expanded within 2 to 5 weeks and retested with overlapping 18 mer peptides from the Yer-hsp60 protein performing cytometric analysis of fixed cells after short term stimulation with peptided pulsed autologous PBMCs.

Results Live antigen-specific IFN γ -secreting CD4⁺ T cells were enriched to a purity of 80 to 90%. After two weeks *in vitro* expansion still 80% of the short-term cultivated T cells reacted with IFN γ -production upon Yer-hsp60 stimulation, while reaction upon stimulation with an irrelevant protein was below 1%. T cells were further expanded antigen-specifically for 3 weeks and their fine specificity was further mapped to one peptide in each patient (AA 139–156 and AA 7–30 of Yer-hsp60/GroEL). These peptides were also recognised by the patient's CD4⁺ T cells when whole blood or synovial fluid was stimulated for 6 h.

Conclusion This approach allows a sensitive and fast epitope mapping of immunodominant epitopes possibly involved in the pathogenesis of ReA.

SAT0032 PREVALENCE OF UVEITIS AND SJÖGREN'S SYNDROME (SS) IN PORTUGUESE PATIENTS WITH ANKYLOSING SPONDYLITIS

¹J Figueirinhas, ¹J Vaz Pato, ¹MM Silva, ²J Gil Forte, ²LN Ferraz de Oliveira. ¹Rheumatology, Portuguese Institute of Rheumatology; ²Ophthalmology, Hospital Egas Moniz, Lisbon, Portugal

10.1136/annrheumdis-2001.384

Background

Objectives

- To evaluate the prevalence of uveitis, SS and Sicca syndrome (SicS) in patients with AS.