Meeting report

Highlights of the 10th International Congress on Behçet's Disease

I. Fresko

Department of Rheumatology, Cerrahpasa Medical Faculty, Istanbul, Turkey.

Please address correspondence to:
Izzet Fresko, MD, Yazarlar Sokak, Yildiz Apt. 12/6, Suadiye, Istanbul, Turkey 81070.
E-mail: freskoi@lycos.com

Clin Exp Rheumatol 2002: 20 (Suppl. 26): S59-S64.

Introduction

The 10th International Conference on Behçet's Disease was held in the Free University of Berlin during June 27-29, 2002 under the auspices of the International Society for Behçet's Disease. 167 physicians participated in the meeting during which around 200 abstracts were presented.

Epidemiology

The papers on epidemiology were mainly based on hospital registries except for one field survey from Iraq that reported a disease prevalence of 17/100,000 (1). There was a decrease in the number of patients in an opthalmology department in Japan (2) and in Iran (3) with a trend towards milder forms of the disease especially in Iran. A higher familial occurence was reported among the ethnic Turkish patients in the German Registry compared to the native Germans (18% vs 4.5%) (4). An abstract from Israel said that patients with a late (> 40 years) disease onset had similar clinical characteristics when compared to those with younger onset (5).

Clinical findings

The problem of complex apthosis defined as frequent oral aphthae and genital ulcers unrelated to Behçet's disease was addressed and the need for a more rigorous differential diagnosis of such conditions especially in areas with a low prevalence of the disease was emphasized (6). 3.8% of the patients followed up because of recurrent apthous stomatitis developed Behçet's disease in Turkey, a figure which was far lower than was previously reported by Bang from Korea (52%) (7). Pathergy was positive in only 20% of the patients who turned out to have Behçet's disease and the main factor that seemed to make a difference was the presence of early onset disease with large ulcerations. Smoking decreased the number of oral ulcers in two studies although the reasons underlying it were not clear (8,9). Ultraviolet radiation was applied to the forearm of the patients with Behçet's disease and the minimal erythematous dose was found to be lower in patients compared to controls in spite of the potential bias due to complexion (10). This was proposed as another example of non-specific immune reactivity in Behçet's that could be used for research purposes. It was emphasized that it was not a diagnostic test.

Several neurological case series affirmed that parenchymal central nervous sytem disease had a worse prognosis than saggital sinus thrombosis and that inflammatory cerebrospinal fluid findings constituted one of the most important prognostic factors (11, 12). The occasional spinal involvement was also related to a bad prognosis (13) and it was demonstrated that 4.5% of the cases of a cohort of patients with neurological involvement experienced seizures in the form of tonic clonic convulsions especially at times of neurological activation (14). The infrequent coexistence of parenchymal central nervous system disease and saggital sinus thrombi was further underlined (15).

A grading sytem for ocular inflammation was proposed and it was suggested that posterior pole inflammation was nearly always involved in cases where the retina could not be visualized due to severe anterior segment inflammation (16). The value of optical coherence tomography in the quantification of macular edema was also studied (17).

Disease activity and prognosis

Reports on the chronology of clinical manifestations from Iran, Turkey and Japan claimed that new episodes of neurological, gastrointestinal and large vessel involvement could be observed late in the course of the disease compared to other manifestations that usually abate with the passage of time (18-20). The highest mortality and the most

severe forms of the disease were encountered in the young male in all series with major vessel disease being the most important risk factor (19, 21, 22). Of a cohort of patients with Behçet's disease 3.25% were reported to develop lymphoid and hematological malignancies in Ankara Turkey (23).

A dichotomous scoring system improved the validity of the Behçet's Disease Activity Index (BDAI, Leeds) but there were still differences in the interpretation of major vessel and eye disease among various countries; a factor that hampers the international use of the instrument (24). A local disease activity index was developed by the Koreans that attempted to overcome the cultural differences (25). A study from Turkey revealed that the IBD-DAM scoring systems and BDAI were comparable (26) and another study showed that the addition of psychometric probes to BDAI would provide additional and valuable information (27). An important argument that was brought up during the discussion was the possible recall bias in evaluating the symptoms. A paper on the quality of life from Israel claimed that males with Behçet's disease were doing better than females. The quality of health, relations with close friends and an independent life style were declining whereas attendance to public organizations and the drive for learning were improving (28).

Genetics and pathogenesis

The section on genetics was rather stimulating. There was a search for genetic factors other than HLA-B51 and a whole genome screening of multicase families with Behçet's disease by Karasneh *et al.* revealed linkage on chromosomes 16 and 12 (29). More families and fine mapping of these areas are required for a detailed analysis. Various polymorphisms of the genes of effector molecules with possible roles in disease pathogenesis were studied. The -403 AA haplotype of the chemokine RANTES was more prevalent among the males with Behçet's disease whereas the -2516 AA and -2076 AA haplotypes of the MCP-1 chemokine was more frequent in females (30). The TNF-1031 allele was significantly associated with the disease independent of gender (31) and ICAM1 469*E variant was more frequently seen in Korean patients (32). The question of methylation of the genes that could have accounted for the gender differences was brought up. The TTbb phenotype for the endothelial nitric oxide synthase gene inferred an odds ratio of 2.42 for acquiring Behçet's disease compared to controls (33) while there were no significant relationships with any polymorphisms related to ID4 and DEK (34), IL-8 receptor CXCR-2 (35), IL-8 (36) and NOD2 gene 3020C insertion mutation (37). A Korean study claimed that there was a relationship between MIC-A*009 and MIC-A*A6 among patients with Behçet's disease (38) and a Tunisian study found that HLA-B51 was more closely associated with the disease compared to the A6 MICA-TM allele (39).

An interesting study on pediatric Behçet patients, revealed an autosomal recessive inheritance pattern contrary to the common belief that the transmission of the disease did not follow a Mendelian pattern (40). A study from Iraq evaluated the acetylator status of the patients and showed that Behçet's disease was seen more often in slow or non acetylators; a factor that was closely linked to the presence of HLA-B 51 (41). A paper claimed that MEVF mutations that characterize FMF were also seen in a group of female patients with Behçet's disease who predominantly had vascular involvement and suggested the possible role of these genes in the disease pathogenesis (42).

There was a consensus among the immunological studies that the inflammatory reaction in Behçet's disease has mainly a Th1 cytokine profile. A study on the skin pathergy reaction from Turkey (43), a Greek study on the immune phenotyping and cytokine profile on peripheral blood lymphocytes (44) and Tunisian and British studies on the *in situ* cytokine expression within the mucocutaneous lesions (45, 46) confirmed this assertion. The only finding that contradicted this was an evaluation of cerebrospinal fluid samples from Turkey which did not fit into any predominant cytokine pattern (47). A study that attempted to relate HLA-B51 positivity to NK cell activity by determining specific KIR receptors, did not find any special functional role of HLA-B51 with respect to NK cells (48). Histological evaluation of skin lesions of erythema nodosum (49) and papulopustular lesions (50) revealed more episodes of vasculitis compared to controls and the vasculitis was mostly of the leukocytoclastic type with immune deposits in the vessel walls. A study from Greece found increased levels of soluble TNF-receptor-II (p75) serum levels in active patients compared to inactive patients (51) and two studies reported an increase in the sFas-L and BCL-2 levels with inconclusive results on apoptosis (52, 53). Anti Saccharomyces Cerevisiae antibodies (ASCA) which are useful in the differential diagnosis of inflammatory bowel diseases, were elevated in a group Israeli patients with Behçet's disease compared to patients with recurrent apthous stomatitis and normal controls (54) but this was not confirmed in a French study (55). A Russian study found an increased T cell response to retinal S antigen in patients with retinal vasculitis (56) and a study from Netherlands showed a restricted gamma delta T cell receptor usage of undetermined significance (57). There were a number of studies concerning defects in innate immunity and Behçet's disease and a Turkish study that reported decreased levels of mannose binding lectin levels claimed that a defect in innate immunity in the pathogenesis of the disease was possible (58). A decrease in transthyretin in the sera of patients with Behçet's disease compared to controls (59) and an increase in the values of L-selectin were also determined (60).

The complexity of the mechanisms underlying thrombosis in Behçet's disease was the main theme in a number of abstracts. An Israeli study found that dyslipidemia was an important factor that differentiated patients with venous thrombosis and controls and showed that total and VLDL cholesterol, triglycerides, apolipoprotein B, C2 and C3 were elevated among these (61). A study from Tunisia revealed that hyper-

homocysteinemia was a risk factor in the thrombosis of Behçet's disease (62) whereas a French study claimed that it was also an independent risk factor for dural sinus thrombosis (63). Impaired relaxation of the brachial arteries and abnormal pulse wave velocity were taken as evidence for endothelial dysfunction (64). The value of procagulant mutations were also evaluated. A study from Turkey showed that deep vein thrombosis was related to Factor V Leiden whereas arterial disease including pulmonary arterial aneurysms was seen more frequently in patients who had the prothrombin gene G20210A mutation and a reduced frequency of PAI-1 promoter 4G/5G insertion/deletion polymorphism (65). There was still no consensus on whether patients with arterial or venous thrombotic disease should be anticoagulated. The previous demonstration of the Factor V Leiden mutation in retinal occlusive disease among a population of Middle Easterners was not confirmed in a UK population suggesting that ethnic differences could be operative (66).

The possible role of infections in the pathogenesis of the disease was also discussed. A study from Japan detected the presence of the streptococcal Bes-1 and Herpes Simplex virus DNA in tissue samples of Behçet patients, but the numbers were too small for a meaningful evaluation (67). The immunogenic proteins of *Streptoccocus sangui*s were isolated and it was seen that a 50kDa antigen and elongation factor Tu seemed to elicit a specific response in patients with Behçet's disease (68). A Japanese study evaluated the role of a synthetic human CAP18 peptide (peptides that naturally have anti-microbial and lipopolysaccharide binding properties) and it was determined that the synthetic peptides agglutinated erythrocytes sensitized with purified cell wall or glycolipids from a strain of *Streptococcus sanguis* (69). The potential therapeutic benefit of these peptides remains to be evaluated. Two studies evaluated the cytokine profiles of peripheral mononuclear cells incubated with *Streptococcus sanguis* and both showed that there was a prominent Th1 response with occasional Th2 cytokines (IL-10), a factor that was taken for evidence of a complex immunological response to streptococci (70, 71). The impaired periodontal health in patients with Behçet's was also related to the possible role of microorganisms in the pathogenesis of the disease (72).

Management

The abstracts on therapy were dominated by interferon and the TNF- blockers. Interferon seemed to be beneficial in suppressing ocular inflammation with a sustained effect after the drug was stopped (73). It also had an acceptable safety profile. The most important drawbacks of the interferon studies were their uncontrolled nature, the lack of standardization of the dosing regimens and the non standardized visual acuity determinations that can easily be influenced by the phase of ocular inflammation (74). A randomized clinical trial of interferon against cyclosporine and/or azathioprine was proposed.

The results of oral tolerization with HSP 60 (p336-351) peptide linked to the cholera toxin B subunit was presented in a small number of patients in an open study (75). It was optimistically claimed that remissions were induced in a subgroup of patients with eye disease (76). A controlled study on the TNF- blocker etanercept revealed that the drug was beneficial in suppressing oral aphthae, nodular lesions, arthritis and papulopustular lesions in the short term while it did not have an effect on the pathergy phenomenon and the monosodium urate tests (77). A six-month open study of etanercept in severe eye disease resistant to azathioprine and cylosporine, showed that the drug was beneficial in at least maintaining visual acuity although the effect was not sustained when the drug was stopped (78). There were various case reports and uncontrolled studies on the beneficial effects of infliximab, another anti-TNF agent, especially on uveitis (79-83). Another uncontrolled study claimed that pentoxifylline was beneficial in controlling the severity of oral and genital ulcers (84) and a study from Iran proposed that methotrexate was effective in eye disease (85).

A survey among the conference attendants disclosed that there were still many divergent opinions among the physicians on how to manage their patients. The magnitude of these differences was quite similar to that observed during the 8th International Conference 4 years ago during which the same questions were asked. There was however one, perhaps important difference. According to the current survey significantly more physicians were using azathioprine for prophylactic purposes in the high risk, young male patient.

Acknowledgement

I would like to thank Prof. Hasan Yazici for his critical evaluation of this manuscript.

References

1. AL-RAWI ZS, NEDA AH: Prevalence of Behçet's disease among Iraqis. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 57.
2. KOTAKE S, NAMBA K,HIGASHI K *et al*.: The change of clinical manifestations of patients with Behçet's disease in Japan. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 55.
3. SHAHRAM F, DAVATCHI F, NADJI A *et al*.: Recent epidemiological data on Behçet's disease in Iran, The 2001 survey. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 2.
4. ZOUBOULIS CC, KÖTTER I, DJAWARI D *et al.:* Current epidemiological data from the German registry of Adamantiades-Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 3.
5. WEINBERGER A, KRAUSE I: Clinical and genetic characteristics of late onset Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 68.
6. JORIZZO JL, MCCARTY A: Complex aphthosis:Evaluation for Behçet's disease ? *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 12.
7. EKMEKCI P, BOYVAT A, ÖZDEMIR E, GÜRLER A, GÜRGEY E: Is long term observation of patients with recurrent apthous stomatitis necessary ? Clinical follow up of 1238 cases. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 66.
8. KAKLAMANI VG, TZONOU A, MARKOMICHELAKIS N, PAPAZOGLOU S, KAKLAMANISPH: The effect of nicotine on the clinical features of Adamantiades-Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 15.
9. AYATA EM, CELIK AF, MELIKOGLU M, HAMURYUDAN V, YAZICI H: The effect of smoking on oral ulcers (OU) of Behçet's syndrome (BS). *Book of Abstracts. 10th Interna -*

tional Congress on Behçet's Disease, Berlin, 2002: Abstr. 73.

10. SAYARLIOGLU M, KAMALI S, INANC M *et al*.: UVB induced erythema in Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 16.
11. SBAI A, WECHSLER B, DUHAUT P *et al*.: Prognostic factors, treatment and long term follow up of patients with parenchymal neuro-Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 29.
12. HOUMAN MH, BEN GHORBEL I, BEN AHMED M, LAMLOUM M, MILED M: Risk factors of neuro-Behçet. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 65.
13. YESILOT N, GUNGOR O, BAYKAN B, ERAKSOY M, SERDAROGLU P, AKMAN-DEMIR G: Spinal cord involvement in neuro-Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 108.
14. AYKUTLU E, BAYKAN B, SERDAROGLU P, GÖKYIGIT A, AKMAN-DEMIR G: Epileptic seizures in Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 106.
15. SBAI A, WECHSLER B, DUHAUT P *et al*.: Neurological Behçet's disease (NBD): Evaluation of 109 patients. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 27.
16. MUDUN AB, ERGEN A, YALCIN E: Characteristics of uveitis in Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr.17.
17. ATMACA LS, BATIOGLU F, MUFTUOGLU O: Fluorescein angiography and optical coherence tomography in ocular Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 20.
18. SHAHRAM F, ASSADI K, DAVATCHI F *et al*.: Chronology of clinical manifestations in Behçet's disease, analysis of 3542 cases. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 6.
19. SEYAHI E, FRESKO I, SEYAHI N: The long term mortality and morbidity of Behçet's syndrome (BS). *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 7.
20. TANAKA C, MATSUDA T, HAYASHI E, IMAMURA Y, OZAKI S: Clinical manifestations and course of 200 Japanese patients with Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 56.
21. BANG D, OH SH,LEE KH,LEE ES, LEE S: Influence of sex on patients with Behçet's disease in Korea. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 5.
22. ZOUBOULIS CC, TURNBULL JR, MARTUS P: Univariate and multivariate analysis comparing demographic, genetic, clinical and serologic risk factors for severe Adamantiades-Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 8.
23. CENGIZ M,ALTUNDAG MK,ZORLU AF: Malignancy in Behçet's disease: Report of thirteen cases and a review of the literature. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 122.
24. LAWTON G, CHAMBERLAIN MA, BHAKTA B, TENNANT A: The Behçet's disease activity index (BDAI). *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 9.
25. LEE ES, KIM HS, BANG D *et al*.: Development of a clinical activity form for Korean patients with Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 70.
26. DINC A, ERDEM H: IBBDAM vs Leeds scoring to measure disease activity in Behçet's patients. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 10.
27. GOGUS F, PEHLIVAN S, FRESKO I, YAZICI H: Simultaneous application of the Leeds Behçet's Disease Activity Form and the Pincus Multidimensional Health Assessment Questionnaire in patients with Behçet's syndrome. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 11.
28. KRAUSE I, PAUL M, BUSKILA D, WEINBERGER A: Quality of life in Behçet's disease: A controlled study. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 71.
29. KARASNEH J, GUL A, OLLIER WER, SILMAN A: Whole genome screening of multicase families with Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 30.
30. CHEN Y, STANFORD MR, VAUGHAN RW, KONDEATIS E, WALLACE GR: Chemokine gene polymorphisms and gender in UK patients with Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 32.
31. WALLACE GR, AHMAD T, JEWELL DP, JAMES T, FORTUNE F, STANFORD MR: The TNF -1031C polymorphism is associated with Behçet's disease in a UK cohort of patients. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 33.
32. KIM EH, MOK JW, BANG D, LEE ES, LEE S, PARK KS: The ICAM1469*E susceptibility to ocular and thrombotic manifestations in Korean patients with Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 136.
33. KARASNEH J, GUL A, WORTHINGTON J, OLLIER WER: Polymorphisms in the endothelial nitric oxide synthase gene associated with Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 137.
34. GUL A, HAJEER AH, WORTHINGTON J, OLLIER B, SILMAN AJ: Sequencing of the ID4 and DEK genes in the novel linkage region for Behçet's disease in the telomere of chromosome 6p. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 126.
35. YILMAZ V, DUYMAZ J, UYAR FA, GUL A, SARUHAN DIRESKENELI G: Polymorphisms of CXCR-2 in Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 134.
36. DUYMAZ J, UYAR FA, SARUHAN DIRESKENELI G, GUL A: Interleukin 8 gene polymorphisms in Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 135.
37. UYAR FA, SARUHAN DIRESKENELI G, GUL A: No association of NOD2 gene 3020C insertion mutation with Behçet's disease in Turkish patients. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 133.
38. MOK JW, BANG D, LEE ES, LEE S, PARK KS: Strong association of MIC-A*009 of extracellular domains and MIC-A*A6 of transmembrane domain in Korean patients with Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 131.
39. BEN AHMED M, HOUMAN MH, ABDELHAK S *et al*.: MICA transmembrane region polymorphism and HLA B 51 in Tunisian Behçet's disease patients. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 132.
40. KONE-PAUT I, MOLINARI N, MANNA R, WECHSLER B, DAURES JP, TOUITOU I: Familial segregation analysis in Behçet's disease: evidence for a Mendelian entity in the pediatric subgroup. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 125.
41. SHARQUIE KE, NAJIM RA, Al-JANABI MH: HLA antigen, severity and acetylator phenotype in Behçet's disease patients with nonrelative parents. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 138.
42. ATAGÜNDÜZ P, ERGUN T, DIRESKENELI H: MEFV mutations are increased in Behçet's disease and associate with vascular involvement. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 35.
43. MELIKOGLU M, UYSAL S, KAPLAN G, GOGUS F, YAZICI H, OLIVER S: Lukocyte phenotype and cytokine expression at the skin pathergy reaction in Behçet's syndrome: Evidence for a Type I immune response. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 38.
44. PSARRA K,KAPSIMALI V, VAIOPOULOS G *et al*.: Immunophenotype and Th1/Th2 cytokines in patients with Adamantiades-Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 141.
45. BEN AHMED M, HOUMAN MH, BEN GHORBEL I,MILED M,DELLAGI K,LOUZIR MH: *In situ* cytokine expression within mucocutaneous lesions of Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 156.
46. DALGHOUS AM, FREYSDOTTIR J, FORTUNE F: Both Th1 and Th2 cytokines are present in oral ulcers of Behçet's patients. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 140.
47. YENTÜR SP, AKMAN-DEMIR G, ISIK N, SER-

DAROGLU P, SARUHAN-DIRESKENELI G: Differential release of cytokines and chemokines in neuro-Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 145.

48. SARUHAN DIRESKENELI G, UYAR FA, CEFLE A *et al*.: KIR and C-type Lectine receptor expression in Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 39.
49. ALPSOY E, UZUN S, AKMAN A, ACAR MA, MEMISOGLU HR, BASARAN E: Histologic and immunofluorescence findings of non-follicular papulopustular lesions in patients with Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 80.
50. RADENSKA-LOPOVOK SG: Histological polymorphism of vasculitis in Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 81.
51. ELEZOGLOU A, SFIKAKIS PP, VAIOPOULOS G, KAPSIMALI V, KAKLAMANIS P: Serum levels of soluble TNF receptor-II (p75), circulating gamma delta T cells and Adamantiades Behçet's disease activity. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 142.
52. HAYASHI E,MATSUDA T, OYA N *et al*.: Soluble Fas-ligand levels in cerebrospinal fluid in neuro-Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 146.
53. HAMZAOUI K, HAMZAOUI A, ZAKRAOUI L: Expression of BCL-2 in inflammatory sites from active Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 160.
54. KRAUSE I, MONSELISE Y, MILO G, WEINBERGER A: A distinct serological marker for Behçet's disease-Anti-Saccharomyces cerevisiae antibodies. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 40.
55. CHARUEL JL, DIEMERT MC, MUSSET L, WECHSLER B, PIETTE JC: Abscence of anti-saccharomyces cerevisiae antibodies (ASCA) in BD. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 152.
56. ERMAKOVA NA, ALEKBEROVA ZS, PROKAEVA TB: Autoimmunity to S-antigen and retinal vasculitis in patients with Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 154.
57. VAN HAGEN PM, HOOJKAAS H, VD BEEMD MWM, VERJANS G, BAARSMA GS: T-gamma delta receptor restriction in peripheral lymphocytes in patients with Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 155.
58. ARITAN N, BIRTAS E, YAVUZ S, ERGUN T, DIRESKENELI H: Low serum mannose binding lectin levels in Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 161.
59. LEE KH, KIM HS, LEE S, BANG D: Comparison of proteome map between sera of patients with Behçet's disease and control. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 129.
60. ASSAAD-KHALIL SH, ABOU-SEIF M, YOUSSEF I: L-selectin expression on leucocytes of patients with Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 158.
61. LEIBA M, ZELIGSHON U, SIDI Y *et al*.: Variables associated with vascular thrombosis in Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 22.
62. HOUMAN MH, FEKI M, GADHOUM H: Does hyperhomocysteinemia increase the risk of thrombosis in Behçet's disease ? *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 24.
63. WECHSLER B, DU-BOUTIN LDH, SIBAI A: Role of thrombogenic factors in dural sinus thrombosis (DST) due to Behçet's disease: A study of 41 patients. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 23.
64. STAMATELOPOULOS K, LEKAKIS J, PROTOGEROU A *et al*.: Arterial wall characteristics in patients with Adamantiades-Behcet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 26.
65. CELEBI ÖNDER S, OZBEK U, AKMAN-DEMIR G *et al*.: The role of procoagulant mutations on the type and site of thrombosis in Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 34.
66. WALLACE GR, CHEN Y, VAUGHAN RW, KONDEATIS F, FORTUNE F, STANFORD MR: Factor V Leiden mutation does not correlate with ocular occlusion in UK patients with Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 37.
67. TOJO M, XHENG X, OYAMA N, ISOGAI E, NAKAMURA K, KANEKO F: Detection of microbial DNA in skin lesions from patients with Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 41.
68. ALYAHYA RA, NAIR SP, HENDERSON B, MURRAY PI, PORTER SR: Investigation of immunogenic proteins from Streptococcus sanguis in Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 147.
69. ISOGAI E, HIRATA M, ISOGAI H *et al*.: Antimicrobial activity of synthetic human CAP18 peptides to *Streptococcus sanguis* isolated from patients with Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 148.
70. LEE KH, KIM HS, KANEKO F, BANG D: Cytokine production from PBMC stimulated by *Streptococcus sanguis* antigen in patients with Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 149.
71. MUMCU G, ERGUN T, ARITAN N, EKSIOGLU-DEMIRALP E, DIRESKENELI H: Cytokine responses to *in vitro Streptococcus sanguis* stimulation in Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 150.
72. MUMCU G, ATALAY T, ERGUN T, ARITAN N, EKSIOGLU-DEMIRALP E, DIRESKENELI H: Dental and periodontal health in Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 120.
73. DEUTER CME, KOETTER I, GUNAYDIN I, ZIERHUT M,STUEBIGERN: Behçet's disease: Visual acuity after 5 years in patients with alpha-interferon treatment. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 45.
74. KOETTER I, TREUSCH M, STUEBIGER N: Interferon-alpha for the treatment of Behçet's disease-review of the literature: Own experiences and possible mechanisms of action. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 44.
75. LEHNER T, STANFORD MR,PHIPPS PA *et al*.: Immunopathogenesis and prevention of uveitis with the BD-specific peptide linked to Cholera Toxin B. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 47.
76. STANFORD MR, WHITTALL T, BALARAJAH G, LINDBLAD M, HOLMGREN J, LEHNER T: Phase I trail of oral tolerization with heat shock protein peptide linked to Cholera Toxin B subunit in the treatment of Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 50.
77. MELIKOGLU M, FRESKO I, MAT C *et al*.: A double blind placebo controlled trial of etanercept on the mucocutaneous lesions of Behçet's syndrome. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 48.
78. MELIKOGLU M, OZYAZGAN Y, FRESKO I *et al*.: The response of treatment resistant uveitis in Behçet's syndrome to a TNF-blocker etanercept: an open study. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 49.
79. SABLE-FORTASSOU R,WECHSLER B, BODAGHI B, CASSOUX N, LEHOANG P, PIETTE JC: Infliximab in refractory panuveitis due to Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 175.
80. TRIOLO G, CICCIA F, FERRANTE M *et al*.: Effect of infliximab in the treatment of Behçet's disease unresponsive to standard therapy. Report of three cases. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 176.
81. JOSEPH A, RAJ D, DUA HS, POWELL PT, LANYON PC, POWELL RJ: Infliximab in the treatment of refractory posterior uveitis associated wth Behçet's syndrome. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 177.
82. MORRIS DS, GAVIN MP, STURROCK RD: Effect anti-tumour necrosis factor (Infliximab) on sight threatening pan uveitis in a patient with Behçet's disease. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 178.
83. SFIKAKIS PP, KATSIARI CG, THEODOSSIADIS PG, KALMANIS P, MARCHOMICHE-

LAKIS NN: Successful long-term treatment of refractory Adamantiades-Behçet's disease with infliximab: report of two patients. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 179.

84. ELIZABETH EMC, CHANG M, CHANG M, GEORGE GCL, LIANG C: Pentoxifylline use for mucocutaneous ulcerations in Behçet's patients: a survey of rheumatologists in the United States and Canada. Book of Abstracts. 10th International Congress on Behçet's disease, Berlin, 2002: Abs no: 185.

85. DAVATCHI F, SHAHRAM F, CHAMS H *et al*.: High dose methotrexate for ocular lesions of Behçet's disease. Preliminary short term results on 23 patients. *Book of Abstracts. 10th International Congress on Behçet's Disease*, Berlin, 2002: Abstr. 52.