

17th International Conference on Behcet's Disease

Fumio Kaneko

Fumio Kaneko, Institute of Dermato-Immunology and Allergy, Southern TOHOKU Research Institute for Neuroscience, 7-115, Yatsuyamada, Japan

Conflict-of-interest statement: The author(s) declare(s) that there is no conflict of interest regarding the publication of this paper.

Correspondence to: Fumio Kaneko, MD, PhD, Institute of Dermato-Immunology and Allergy, Southern TOHOKU Research Institute for Neuroscience, 7-115, Yatsuyamada, Japan.

Email: f.kaneko@mt.strins.or.jp

Telephone: +81-24-934-5322

Received: November 2, 2016

Revised: November 17, 2016

Accepted: November 20, 2016

Published online: December 26, 2016

ABSTRACT

The International Conference on Behcet's Disease (ICBD) was held on 15th to 17th September, 2016, in Matera, Italy (President: Dr. Ignazio Olivieri, Rheumatology). The venue was Sain'Anna Congress Center located at near the old city of Matera known as "Sassi", which is stone and cave dwelling remained in the medieval history (World inheritance). In the meeting, clinical events including epidemiology, rheumatology, ophthalmology, immunology, therapy, basic medicine, etc. were mainly discussed among about 300 participants from the world. Then, I would like to pick up some topics in the view point of a dermatologist. The conference was consisted of 4 special lectures, 26 informative sessions, 26 oral presentations and 125 posters and the International Patients' Conference-Matera was also held on 17th September.

© 2016 The Author(s). Published by ACT Publishing Group Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Kaneko F. 17th International Conference on Behcet's Disease. *Journal of Dermatological Research* 2016; 1(4): 75-76 Available from: URL: <http://www.ghrnet.org/index.php/jdr/article/view/1919>

EPIDEMIOLOGY AND GENETICS

Behcet's disease (BD) most often affects young adults, but occasionally can have its onset in childhood. By Italian Pediatric Rheumatic Centers, the data on 129 BD patients was analyzed, retrospectively. In 73 male and 56 female Caucasian patients, a positive family was reported in 14 cases, mean age at disease onset was 9 years and mean age at diagnosis 13 years. The most common mucocutaneous syndromes were recurrent aphthous stomatitis (RAS) (93%), genital ulcers (27%), pseudofolliculitis (17%), macropapular rash (16%), erythema nodosum (EN) (13%) and acneic or papulopustular lesions (12% each). Patergy test positive was only seen in 9 of 77 patients (11.7%). Abdominal pain and diarrhea were the most common gastrointestinal symptoms ($n = 8$) and headache was the most common neurologic symptoms ($n = 17$). HLA-B51 was associated in 39 of 117 patients (35.1%) (Gallizzi *et al*, Italy).

The contribution genotype of HLA-B51 to the clinical manifestations and a risk factor of BD is widely accepted among the clinicians and investigators. It has been considered to be more than 60% of BD patients are associated with HLA-B51 and adjusted gene since 1980s in Japan, although it may be different from the human races. However, a recent cohort study by the research group revealed the transition of clinical manifestations which decrease the number of the complete type of BD patients by Japanese classification and HLA-B*51 positivity, whereas increase of the patients with gastrointestinal disease (Takeuchi *et al*, Japan). There may be an association between IL-17 gene polymorphism and gastrointestinal symptoms in BD patients (Nakamura *et al*, Japan). From a Russian report, 59.6% of 86 Dagestan patients (mean ages: 30.7 years) were associated with HLA-B5/51 and much more often in man than in woman. Genital ulcers and EN were significantly more common in HLA-B5/51 positive than in the negative ones and there were no significant differences in Russian group of the patients (Izmailova *et al*, Russia).

PATHOGENESIS

While $\gamma\delta T$ cell population represent only a small population of circulating lymphocytes, they are accumulated and proliferated in mucosal tissues following microbial activation and these cells were demonstrated in RAS lesions of BD patients (Bregmiyer *et al*, UK).

In serum of active BD patients, the key cytokines were interleukin (IL)-6 and tumor necrosis factor (TNF)- α , though they were high in inactive BD patients. IL-26 was also enhanced in active BD patients, which supports activation of Th17 cells, although other several cytokines are also released (Lucherini *et al*, Italy).

It is of interest that CD8+CD28-T cells or senescent CD8+T cells are increased in peripheral blood of BD patients (Lee E-S *et al*, Korea). On the other side, Th17 cells are stimulated and express of IL-17 and interferon (IFN)- γ production are prominent (Deniz and Direskeneli, Turkey).

From murine model exhibiting gut microbial dybiosis, which induces extra-intestinal and ocular inflammation, hyper serum lipopolysaccharide (LPS) can be found. Hyper serum LPS levels are detectable in active BD patients with oral membrane involvement, as well. Serum high level of LPS can be a marker of oral membrane involvement of BD patients (Low *et al*, UK).

CLINICAL AND OUTCOME MEASURES

BD symptoms generally start with RAS and insanitary conditions are often observed in the oral cavity of the patients, whose oral streptococci (*S. sanguinis*) are increased. Oral health is related outcome measures for the clinical assessment of oral ulcers in BD patients (Mumcu, *et al*, Turkey). We demonstrated a new diagnostic finding for BD and related diseases including RAS and Lipschutz genital ulcer by pricking self-saliva, because BD patients show

allergic reaction to oral streptococci included in saliva (Kaneko *et al*, Japan: *J Dermatol Res*, 2016:1-10).

TREATMENTS

The conventional treatments for BD symptoms have been allopathy. It is routinely used anti-inflammation agents to inflammatory symptoms, such as non-steroid anti-inflammatory drugs (NSAIDs), colchicine and steroids and immunosuppressives (azathioprine, chlorambucil or cyclophosphamide and cyclosporin A) are also applied for severe symptomatic cases with ocular involvement. In some cases antibiotics including tetracyclines and penicillin are adapted with mouth washing to keep clean the oral cavity of BD patients.

Recently new clinical trials using biotics targeting inflammatory cytokines have been done with anti-IL-1 agents (Cantarini, *et al*, Italy) and anti-tumor necrosis factor (TNF)- α monoclonal antibody (Infliximab, adalimumab). They are also applied for BD patients with neurologic, ocular, vascular and intestinal involvements (Hirohata, *et al* and Ishigatsubo, *et al*, Japan). The clinical efficacies were thought to be well by inhibiting inflammatory cytokines released from Th1, Th2 and Th17 cells.

The next, 18th ICBD will be held in Rotterdam of Netherlands, in September, 2018. As the President of International Society of Behcet's Disease, Professor Dorian Haskard (Queen Mary University London) was selected for next four years.