BOOK REVIEW

Pemphigus Vulgaris: Autoimmune Bullous Disease

Author: Danka Švecová, MD., PhD. (Professor of Dermatovenerology Comenius University, Faculty of Medicine)

Monograph focused on pemphigus vulgaris by professor Danka Švecová, MD, Ph.D. is an example of an outstanding book. 163 pages of text with more than sufficient literary sources, instructive and useful figures and tables. Prof. Švecová is an experienced clinician and researcher focused on autoimmune blistering disorders, especially pemphigus vulgaris (PV) with some her unique research results from the field of genetic background of PV. Main chapters of the book are: *Pathogenesis of PV, Diagnostics of PV, Clinical characteristics of PV and Management of this disease*. The book is written clearly with wide and recent knowledge of the topics. PV is very rare disease and epidemiology varies across the world. In both Europe and the USA pemphigus vulgaris represents the pemphigus group, whereas pemphigus foliaceus is more prevalent in Africa and certain rural areas in underdeveloped countries. Very valuable part of the book is genetics in this autoimmune blistering disease. PV is genetically mediated and genetic predisposition is associated with HLA with main susceptibility locuses DQB1 and DQA1 and in polygenic background of the PV non HLA genes are involved – for example gene for desmoglein 3 with significant association with PV in some studies. Interesting are some cytokine gene polymorphisms like in TNF-alpha or IL-10 genes. The goal of investigation in the future is to find and exactly interpret genetic markers for the risk of pemphigus vulgaris and fro prediction of the course and response to therapy. Here is a problem of therapeutic targets. Following part with autoantigens in PV is focused predominantly on desmosomes, desmosomal cadherins, armadillo proteins, plakins, regulation of desmosome formation and autoantigens on keratinocytes and subsequently with the role of autoantibodies. The crucial chapter is regulation of pemphigus vulgaris autoimmunity with B-cells able to negatively regulate cellular immune response and inflammation. Autoimmunity in pemphigus vulgaris is developing according to the rules of antibody mediated autoimmune diseases. The role of regulatory T-cells is well understood and of Breg remains to be determined. Author logically continues and describes molecular mechanisms of keratinocyte detachment in PV with very interesting events at the level of desmosome and intracellular events with collapse the cytoskeletal structure of basal keratinocytes and basal cell shrinkage. Then the triggers in pemphigus vulgaris are described and discussed. Precise mechanisms of exogenously induced autoimmune disease are unknown. Changes in gene expressions? Induction of DNA methylation? Exogenous factors are numerous with several drugs – this is fact with high clinical significance! NSAIDs, antibiotics, antihypertensives, some cytokines and others. Viral and other infections can be trigger, too. Some possible mechanisms of triggering the autoimmunity are considered by author. In following chapter – predictors of course and prognosis - Svecova et al. documented that patients carrying HLADRB1*04:02 far more frequently revealed severe pemphigus vulgaris and more frequently have the mucocutaneous phenotype than those other HLA alleles. Mucocutaneous phenotype is considered to be more severe in occurrence. Diagnostic toll is done by histopathology, direct immunofluorescence, indirect immunofluorescence or enzyme linked immunosorbent assay. Clinical characteristics of pemphigus vulgaris follows and then management of PV, such important chapter for clinicians. The goal of the therapy is to induce a complete remission with minimum side effects which enables all therapy to be discontinued or the use of the lowest drug doses that prevent disease activation. Author describes different treatment regimens with corticosteroids and group of adjuvant drugs usually used in combination with

corticosteroids like azathioprine, mycophenolate mofetil, cyclophosphamide, methotrexate, cyclosporine or dapsone and methods like plasmapheresis, immunoadsorption, intravenous immunoglobulins and finally rituximab. In rituximab treatment, there are two FAD approved protocols described and overview of the literature. Conclusion is: rituximab resulted both in major clinical improvement and corticosteroid-sparing effects, recently as a second line of therapy. But there is still no confirmed best strategy for pemphigus treatment. Corticosteroids remain the mainstay. Very important in management of PV is topical treatment.

The book is very useful source of recent knowledge of PV for dermatologists, general practicioners, and other medical specializations and even for medical students. I can highly recommend it.

Review provided by
Prof. Vladimir Vašků, MD, CSc.
Head and Chairman 1. Dermatovenereological Clinic
St. Anna‘s Faculty Hospital Medical Faculty
Masaryk University in Brno
Czech Republic
President of the Czech Academy of Dermatovenereology