

EDITORIAL

Immuno-dermatological processes involved in chronic skin diseases: Highlights of the Second Conference of the Romanian Society for Immuno-Dermatology, Bucharest, September, 2018

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Immunological phenomena have been shown to be extensively involved in recent years as key pathways in the pathogenesis and outcomes of several chronic skin conditions and have been linked to novel therapeutic options. Thus, this special issue focuses on reviews, original articles and case presentations in immuno-dermatology, in order to partially elucidate those pathways and processes.

The main topics covered in this special issue were immunological pathways involved in the pathogenesis of psoriasis, lichen rubra, atopic dermatitis, chronic urticaria, pruritus and adverse drug reactions.

Polymorphisms of the IL-17 family have been shown to be associated with the severity and response to treatment in psoriasis, and also with the risk of inflammatory, infectious, autoimmune or neoplastic pathologies. The significant difference in the presence or absence of susceptibility loci in different population is due to genetic background and environmental factors that have a major impact on disease predisposition. Pușcaș *et al* (1) reviewed the importance and influence of the IL-17 polymorphisms as predictors of response to treatment and severity of the disease.

Guo *et al* (2) aimed their study to assess the effects of the traditional Chinese medicine (TCM), white mangle mixture, in a murine model of vaginal psoriasis, proving that white mangle mixture can significantly inhibit vaginal psoriasis in a mouse model by decreasing the amount of epithelial KC cell PCNA and the production of the inflammatory cytokine, GM-CSF in serum.

Morar *et al* (3) performed an immunohistochemical analysis of psoriatic plaques and perilesional skin in patients

with psoriasis vulgaris, aiming to investigate the expression of tumor necrosis factor- α (TNF- α), vascular endothelial growth factor receptor-2 (VEGFR-2) and prolactin receptor (PRLR) in psoriatic skin and to evaluate the association with disease severity. Positive cells for VEGFR-2 and PRL were identified in the basal layer keratinocyte cells (VEGFR-2), sweat glands and hair outer shaft sheath (PRLR), without significant differences between the two types of samples. Their findings confirm the importance of TNF- α in psoriasis pathogenesis and a positive association with lesion severity. No significant differences were found for VEGFR-2 and PRLR; however, additional studies are required to establish their role.

Raducan *et al* (4) presented the outcome of biological anti-TNF- α treatment in severe psoriasis associated with chronic hepatitis B, aiming to emphasize that the use of etanercept in this comorbidity of psoriasis is a successful therapeutic alternative, which may be safely used concomitantly with entecavir, with regular monitoring of viral load and hepatic function tests.

Boca *et al* (5) assessed, through a questionnaire, demographic criteria, as well as patient-related issues in patients with psoriasis in Romania, with questions about the prevalence, social impact and comorbidities of this chronic skin condition.

Though biological treatment is nowadays a key standard in moderate to severe plaque psoriasis, methotrexate is still used in countries with no access to costly treatments. Nedelcu *et al* (6) summarized in a review the efficacy of methotrexate as an anti-inflammatory and anti-proliferative drug in dermatology.

Biosimilars are new drugs, highly similar copies of biological medicines, equally effective and safe, but are available at lower prices. Constantin *et al* (7) provide a brief review of the current status of biosimilars approved in the European Union for dermatological use.

Ilie *et al* (8) summarized in a review the effects of capsaicin on neurogenic inflammation and nociception, as well as its potential diagnostic value and therapeutic impact in various conditions involving the impairment of sensory nerve fibers.

Rusu *et al* (9) performed a review on probiotics in atopic dermatitis, showing that there was an increase in intestinal permeability in patients with atopic dermatitis and also a

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reduction in cutaneous microbiome diversity. Probiotics modulate the general microbiome and immune status by improving the intestinal barrier; these effects may be responsible for reducing allergic phenomenon and atopic dermatitis severity. They structured the results by age group, such as infants, 1-18 year olds, adults, and also by pregnancy and lactation.

Satureja hortensis L. has gained increased interest due to its chemical composition. It is found abundantly in monoterpenes, aglyconic and glycosylates flavonoids, and phenolic acids, which leads to an important biological activity. Popovici *et al* (10) compared the biological activity of volatile oil (VO) and total hydro alcoholic extract (TE) of *Satureja hortensis* L. in terms of: i) antioxidant activity; ii) antimicrobial activity; and iii) viability, migration and proliferation on two healthy cell lines and two melanoma cell lines.

Nwabudike *et al* (11) presented four cases of generalized lichen planus (LP) with and without mucosal involvement treated homeopathically, showing that in its long-standing, generalized form, with mucosal involvement, LP may respond to individualized homeopathy, concluding that more research may clarify the place of homeopathy in LP therapy.

Xu *et al* (12) studied the effects of lidocaine on the safety of postoperative skin reconstruction following malignant melanoma resection, showing that the local application of lidocaine can promote wound healing to a certain extent, reduce pain, and promote postoperative skin reconstruction.

While recent articles have focused on the positive uses of β -blockers, it may also be wise to focus our attention on the potential dermatologic adverse effects that may follow β -blocker use, as well as possible therapeutic approaches to these. Tatu *et al* (13) focused on those dermatoses resulting from β -blocker use, which have an immunologic basis.

Bumbacea *et al* (14) analyzed 2 severe cases of cold urticaria and symptomatic dermatographism with a completely different response to omalizumab, concluding that although many clinical studies support the use of omalizumab in the treatment of patients with this condition, we certainly need more data for prediction of a good clinical response.

Hu *et al* (15) aimed their study in investigating the clinical features and possible influencing factors of pruritus in patients with chronic renal failure proving a significant difference in the levels of serum urea nitrogen, creatinine, serum phosphorus, calcium x phosphorus, and PTH (parathyroid hormone) between patients with pruritus and non-pruritus. They also showed that local cold and heat stimulation can relieve pruritus to some extent, and adequate hemodialysis can also relieve itching as well as reducing xeroderma.

Linte *et al* (16) present the case of an 11-year-old child with cachexia, severe dextroscoliosis, pectus carinatum, secondary restrictive pulmonary disease, and an incidental finding of a large ostium secundum atrial septal defect (ASD) that was identified on preoperative assessment for surgical correction of the spinal deformity.

To conclude, the quality of the articles submitted to the Special Issue of 'Experimental and Therapeutic Medicine'

meets the Journal's standards, providing fundamental scientific points, thus achieving the proposed aims of the issue. We would like to take this opportunity and thank all the authors for their valuable contribution.

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