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Recent Highlights and Expert Opinion on Psoriasis Management

Farid Menaa^{1,2*}

¹Department of Internal Medicine and Nanomedicine, California Innovation Corporation, San Diego, CA, USA

²Departments of Dermatology, Oncology, Venereology and Allergo-Immunology, School of Medicine, Wuerzburg, Germany

*Corresponding Author: Farid Menaa, Departments of Dermatology, Oncology, Venereology and Allergo-Immunology, School of Medicine, Wuerzburg, Germany; Email: dr.fmenaa@gmail.com

Received Date: 14-04-2020; Accepted Date: 18-05-2020; Published Date: 25-05-2020

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Editorial

Psoriasis is a common chronic inflammatory skin disorder characterized by red, flaky, crusty, scaly, itchy, thickened plaques (Fig. 1), which affects approximately 2% of the population worldwide [1-2]. Increasing evidences supports the recognition of psoriasis as a multisystem chronic inflammatory disorder with multiple associated comorbidities, including myocardial infarction, metabolic syndrome, diabetes (Type 2 diabetes) and/or Crohn's disease [3-6].

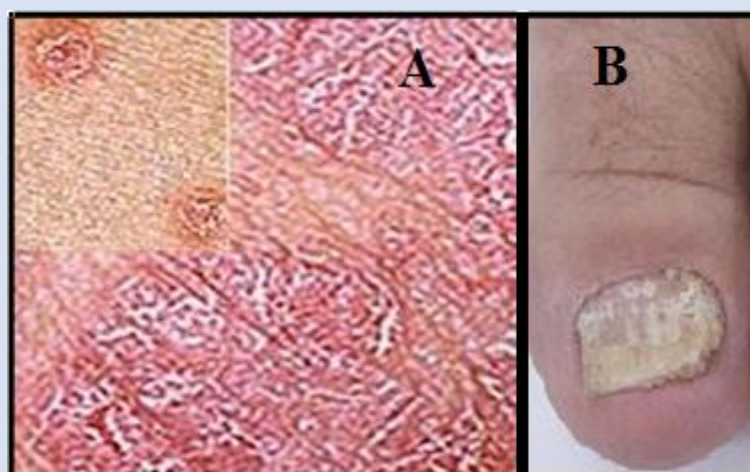


Figure 1: Clinical cases of psoriasis. (A= Skin psoriasis, B= Nail psoriasis).

Sudden sensorineural hearing loss, known as a systemic vascular involvement in autoimmune disease, has also been reported associated with psoriasis [7-8]. Eventually, prevalence of migraine with aura in the psoriatic population was found significant, which may also represent a possible new comorbidity of the psoriatic disease [9]. Then, severe psoriasis must be considered as a life-threatening disorder since it significantly impacts patients' health and life quality [2].

Treatment options mainly include topical administration/application of corticosteroids (e.g. prednisone, dexamethasone), retinoid (e.g. acitretin), anthralin (aka dithranol), calcineurin inhibitors (e.g. tacrolimus or pimecromilus ointments), Goeckerman therapy (e.g. ultraviolet B + crude coal tar), Psoralen Plus Ultraviolet A (PUVA), excimer laser (e.g. exciplex laser), vitamin D3 analogues (e.g. calcipotriene), salicylic acid, moisturizers [2]. Interestingly, recent studies using immunobiologics (e.g. ustekinumab, tofacitinib) have reported effectiveness [10-11]. Besides, dietary supplementation (e.g. fish oils, honey mixture with beeswax and olive oil) and phytotherapeutics (e.g. *Aloe Vera* gel, *Calendula officinalis* cream) could be effective adjuvant treatments [2].

Research Pearls on Psoriasis

- MicroRNA-mRNA network analysis and Gene Ontology (GO) annotation analysis, coupled with experimental data of clinical samples, shall permit to investigate the relationship between psoriasis and a subsequent comorbidity (e.g. T2D, hearing loss). In other words, a reliable network-based bioinformatics approach to identify microRNA target genes involved in both psoriasis and a given comorbidity shall enlighten future studies on the molecular pathogenesis of psoriasis.
- Phytotherapy combined to immunotherapies as pathogenic probes of T1-mediated immune disorders, may be relevant to manage at least certain forms of psoriasis. Nevertheless, because immunotherapy drugs are relatively new, the full range of their side effects remains to be elucidated and their use limited to moderate to severe cases.

Clinical Pearls on Psoriasis

- Psoriasis Area and Severity Index (PASI) is the most widely used tool for the measurement of severity of psoriasis. PASI combines the assessment of the severity of lesions and the area affected into a single score in the range 0 (no disease) to 72 (maximal disease). The PASI calculator can be found using: <http://pasi.corti.li/>
- Approximately 62.5% of patients with psoriasis who experience migraines experience migraine with aura, but further studies are needed to assess their interplay in developing cardiovascular diseases [9].

Menaa F | Volume 1; Issue 1 (2020) | JDR-1(1)-002 | Editorial

Citation: Menaa F. Recent Highlights and Expert Opinion on Psoriasis Management. J Dermatol Res. 2020;1(1):1-4.

DOI: <http://dx.doi.org/10.46889/JDR.2020.1102>

- Ustekinumab is more effective than adalimumab and etanercept for the treatment of psoriasis over 5 years [10-11].
- Unique sera proteomic signatures may distinguish between inflammatory skin diseases (e.g. atopic dermatitis, contact dermatitis, and psoriasis) despite similar epidermal barrier disruption and epithelial inflammation [12].
- Tofacitinib treatment improves nail psoriasis in patients with plaque psoriasis up to 52 weeks [13].
- The Toronto Psoriatic Arthritis Screen II is a specific screening tool for diagnosing psoriatic arthritis [14].

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