HKCD and HKSPD Joint Annual Scientific Meeting 2019

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Deeper look beneath PASI 100 achieved by IL-17 receptor blocker for psoriasis treatment

Speaker: K Yamasaki
Department of Dermatology, Tohoku University Graduate School of Medicine, Japan

Interleukin (IL) 23 stimulation of T helper 17 subset produces IL-17, which in turn stimulates cytokines and chemokines in the pathogenesis of psoriasis. Brodalumab targets IL-17 receptor A, and rapidly reduces keratinocyte expressed genes and keratinocyte hyperplasia. It is useful for all types of psoriasis and has a fast onset of action. For patients who had previously failed other biologics, brodalumab is also effective. It is also effective in patients who had previously received brodalumab presenting with recurrence of psoriasis.

Regarding the risk of suicide reported in studies, the affected patients often had a past history of psychiatric illness and concomitant social/economical/legal stressors. Compared to other biologics, in which these patients are excluded, with brodalumab, the inclusion criteria for accepting psychiatric patients was lax. In fact, most patients had decreased depression, anxiety, and improved quality of life after brodalumab.

Learning points:

IL-17 receptor A blockade (e.g. brodalumab) is an important means of treating psoriasis. Detailed analyses do not confirm suicide behavior with brodalumab.

New era for treatment in psoriasis

Speaker: CY Hui
Department of Dermatology, Chang Gung Memorial Hospital, Keelung, Taiwan

IL-23 is an upstream molecule compared to IL-17a or IL-17RA in the psoriasis pathway; therefore, its blockade is theoretically more effective. This can explain why IL-23 blockers are administered every 8-12 weeks, but others need more frequent dosing. Moreover, the time to disease relapse after stopping treatment is long.

Guselkumab is an IL-23 blocker with quick onset of action and good efficacy. Compared to secukinumab, it initially lags behind in efficacy by an average of 3-6 days, but in the long run performs better. Moreover, IL-23 blockade does not affect intestinal epithelial cell permeability, unlike IL-17 blockade. Therefore, risk of inflammatory bowel disease from treatment is much lower.

Learning points:

IL-23 blockade (e.g. guselkumab) operates at an upstream level in psoriasis, and is more effective. It is less likely to result in inflammatory bowel diseases compared to IL-17 blockade.

Recent advances in energy-based device in cosmetic dermatology

Speaker: HHL Chan
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The University of Hong Kong, Hong Kong

Laser and light sources have been used to treat acne. These include pulsed dye laser, 1450 nm diode laser and blue light but lack long term efficacy. Photodynamic therapy has been used to treat acne vulgaris but are associated with side effects such as pain, erythema, crusting and swelling. In recent years, gold nanoparticles have been used to be deposited in sebaceous glands. The subsequent use of 800 nm diode laser, which is selectively absorbed by the gold nanoparticles, can lead to selective destruction of the sebaceous glands. Lasers can be used for treatment of epidermal pigmentation but can be associated with complications such as post inflammatory hyperpigmentation, although this can be reduced by using the appropriate parameters. The dosimetry and role of controlled skin cooling on epidermal pigmentation is still being studied. Other future developments include the use of focused laser beam and multilayer scanning.

Learning points:

The advancement in the energy based devices brings the breakthrough treatment in the cosmetic dermatology.

Advancing the management of atopic dermatitis in adolescents

Speaker: H Kim
Department of Dermatology, CHA Bundang Medical Center, CHA University, South Korea

The prevalence of atopic dermatitis ranges from 7.2% to 22.6% and is primarily a disease of early childhood. The clinical features and distribution of AD lesions vary with age. In the treatment recommendation of atopic eczema in children, additional therapeutic options should be considered for every phase. Antiseptic/antibiotics need to be considered in cases of infection while compliance and the diagnosis should be reviewed if the therapeutic effect is suboptimal.

Short-term systemic corticosteroid can be used in cases of severe cases of AD that do not respond to conventional treatment. As for immunosuppressants, cyclosporine has the highest strength of evidence for AD. Dupilumab is a human monoclonal antibody directed against the IL-4R subunit of the IL-4 and IL-13 receptors. It is approved for treatment of moderate-to-severe AD in adults who are candidates for systemic therapy and can be used with or without topical corticosteroids. Issues requiring further study include the effects of dupulimumab withdrawal, whether there will be rebound of AD on withdrawal and the recapture rate on re-introduction of dupulimumab.

Learning points:

Atopic dermatitis is a common chronic skin disease in adolescent population. The currently available therapeutics are limited, the development of biologics is undergoing as the treatment of moderate-to-severe AD.