ABSTRACT BOOK ABSTRACTS



A new ERA for global Dermatology 10 - 15 JUNE 2019 MILAN, ITALY

PSORIASIS

DEVELOPMENT OF A SELECTIVE S1P1 RECEPTOR AGONIST, IMMH002, AS A POTENTIAL THERAPEUTIC AGENT FOR PSORIASIS

J Jin⁽¹⁾ - Xy Zhang⁽¹⁾ - Nn Xue⁽¹⁾ - M Ji⁽¹⁾ - S Zhang⁽¹⁾ - Yc Wang⁽¹⁾ - Ff Lai⁽¹⁾ - Xg Chen⁽¹⁾

Institute Of Materia Medica, Chinese Academy Of Medical Sciences And Peking Union Medical College, Pharmacology, Beijing, China⁽¹⁾

Psoriasis is a chronic inflammatory skin disease characterzied by abnormal keratinocyte proliferation and immune cell infiltration in the dermis and epidermis which causes itchy, scaly and erythematous plaques of skin. Like all the other autoimmune diseases, its mechanism of action is still unclearly known and all the current treatments have limitations. IMMH002 is a novel selective S1P1 modulator, which can decrease the peripheral pathogenic lymphocytes by rendered them insensitive to egress signal from secondary lymphoid organs and thymus. Since lymphocytes infiltration is one of the most important pathogenic triggers in psoriasis, we examined the therapeutic effect of IMMH002 on psoriasis in this study. Firstly, we found IMMH002 can decrease the skin inflammation and irritation of mice caused by SDS. Secondly, it shows great therapeutic effect on the psoriasis form skin of guinea pig induced by propranolol, and also reduce the expression of PCNA in epidermis. Finally, it significantly decrease the PASI score and pathological damage in IMQ induced mouse model of psoriasis. The flow cytometry and western blot experiments further demonstrated that its therapeutic effects maybe closely related to its activity on the redistribution of CD3+ T cells, which was deceased in blood and skin and increased in thymus. All these results illustrate that, as a selective S1P1 agonist, IMMH002 exhibits a profound and rapidly reversible suppression of lymphocyte trafficking and it has the potential to serve as a therapeutic agent for psoriasis.

Keywords: S1P1; S1P1 agonist; IMMH002; lymphocyte; psoriasis



24TH WORLD CONGRESS OF DERMATOLOGY MILAN 2019



International League of Dermatological Societies Skin Health for the World

