



ACNE, ROSACEA, AND RELATED DISORDERS (INCLUDING HIDRADENITIS SUPPURATIVA)

PATHOGENESIS OF ROSACEA

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Rosacea is a common and chronic inflammatory skin disease presenting chronic facial erythema, telangiectasia, papules and pustules. The clinical and etiological observations and molecular studies suggested that an altered innate immune response is involved in the pathogenesis of the vascular and inflammatory disease seen in patients with rosacea. Among innate immune system, Toll-like receptors (TLRs), TLR2 is abundantly expressed in the skin of rosacea individuals. TLR2 expression is also co-localized with the distribution of kallikrein 5 in epidermis of rosacea. Accompanying with kallikrein 5 expression, rosacea skin has high protease activity, and individuals with rosacea expressed abnormally high levels of cathelicidin in epidermis. The abnormal cathelicidin can enhance neovascularization, recruit neutrophils and mast cells, and cause inflammations in rosacea skin. These findings may help explain the benefits of current treatments and suggest new therapeutic strategies helpful for alleviating this disease. This presentation discusses the possible molecular mechanisms for the pathogenesis of rosacea from current clinical observations and laboratory research.

