〈教育セミナー〉
（アクネケア最前線）

皮膚防御機能の温故知新
――アクネス菌，エピデルミディス菌の常在細菌としての役割――

武田　克之*

Learn a Lesson from the Past Concerning Skin Barrier Function
—Significance of *Propionibacterium acnes* and *Staphylococcus epidermidis* as an indigenous skin bacteria—

Katsuyuki TAKEDA*

Abstract

Propionibacterium acnes (*P.acnes*) is believed to be the main pathogenic bacteria of acne, “virulent bacteria” because it is often isolated from the focus of “acne”as the most abundant bacteria. However, *P.acnes*, the most abundant bacteria in the normal healthy skin bacterial flora, is assumed to play a roll to form functional sebum film for the skin, in collaboration with the secondly inhabitant *Staphylococcus epidermidis* (*S.epidermidis*) In other words, these skin indigenous bacteria form a micro flora by getting food for their lives from the skin sebum film and simultaneously improve its protective barrier functions in relation to moisturizing, UV absorption, and bacterial attacks. Acne (especially, inflammatory acne) is not mere infection by *P.acnes*, but the main player in role of its inflammation is focused to be the neutrophil’s tissue disordering action to lead hair follicle destruction. This is triggered by the collect of excreted sebum in follicle region. Therefore, its therapy is not only limited to anti-bacterial treatment, but should be to clean first the track of sebum excretion and to activate useful skin indigenous bacteria having their superoxide dismutase (SOD) excretion activity. From the point of preventive medicine, it is presumable to feed essential ions for the indigenous skin bacterial SOD by ointment or cosmetics, which will help continuous destruction and removal of skin surface superoxide occurring under normal sunshine UV irradiation.

Key words: *Propionibacterium acnes, Staphylococcus epidermidis*, flora, acne, superoxide.