

## ***Malassezia* microflora on the senile face associated with seborrheic keratoses**

**Tomohiro Banno**

*Tsukuba University Graduate School of Comprehensive Human Sciences, Rokucho Skin Clinic*

Seborrheic keratoses (SK) are verrucous dark-brown nodules or elevated macules, which develop on the face and the body mainly in elderly patients. They are often multiple in seborrheic areas and show epidermal proliferation with hyperkeratosis. Lipophilic yeasts of the genus *Malassezia* are members of the normal human cutaneous microflora and are also associated with several skin diseases including atopic dermatitis and seborrheic dermatitis. We investigated the roles of genus *Malassezia* in SK by microflora analysis using nested PCR. *Malassezia obtusa* and *Malassezia slooffiae* were preferentially detected in SK group. Aging and a lack of face cleansing are important factors in the detection rate for both species. DNA microarray analysis in normal human keratinocytes incubated with *Malassezia slooffiae* for 24 hours revealed transcriptional changes toward epidermal proliferation, keratinization, and up-regulation of lipid metabolism, which provide beneficial environments for the growth of *Malassezia* spp.