

Editorial

Fungal skin diseases and seborrheic dermatitis

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Description

Seborrhoeic dermatitis (SD) is a chronic relapsing inflammatory skin disease with erythematous lesions and desquamation as basic features. The prevalence of SD in the general population is high (USA 11.6%) [1]. However, in some groups, the incidence of SD can be over 80%, such as in elderly patients with parkinsonism [2] or HIV+ persons (from 34% to 83%) [3,4]. The most important factors for the development of SD are: genetic predisposition, hyperhidrosis, malnutrition, immunodeficiency [4], pregnancy, use of systemic corticosteroids or contraceptives, as well as environmental conditions such as high temperature, humidity and Malassezia yeast [5].

These yeasts are part of the microbial flora of the human skin, but under certain conditions can become pathogenic and lead to the development or worsening of certain skin diseases and rarely, to the development fungaemia [6]. Correlation of SD flares with proliferation of Malassezia species and clinical response of SD to antifungal agents (ketoconazole, ciclopirox) have led many researchers and clinicians to believe that Malassezia. Genus Malassezia includes 14 species: M. globosa, M. restricta, M. furfur, M. slooffiae, M. obtusa, M. sympodialis, M. japonica, M. nana, M. dermatis, M. cuniculi, M. equina, M. caprae, M. yamatoensis (lipophilic) and M. pachydermatis (non-lipophilic) [7]. There are data about the difference in the distribution of certain species of Malassezia in relation to the patient's gender or localisation of skin changes [8], geographic location of patients [7], also in the applied method of sampling, improving and identification of Malassezia [9]. There is not enough data about distribution, species and density of Malassezia in patients with SD in Serbia, except for patients with Parkinson's disease [10]. Some newer studies tried to determinate Malassezia presence and density on lesional skin

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(LS) and nonlesional skin (NLS) in patients with SD, as well as to examine the differences in presence and density of identified species on LS and NLS in patients with SD and healthy control (HC) and found out higher presence and density of Malassezia spp. on LS of SD patients than on NLS of SD patients and HC. M. slooffiae was identified as the most prevalent species in SD patients (Serbia) [11].

References

- 1. Naldi L, Rebora A. Clinical practice: seborrheic dermatitis. N Engl J Med 2009; 360: 387–96.
- 2. Binder RL, Jonelis FJ. Seborrheic dermatitis in neuroleptic induced parkinsonism. Arch Dermatol 1983; 119: 473–475.
- 3. Munoz-Perez MA, Rodriguez-Pichardo A, Camacho F, Colmenero MA. Dermatological findings. Br J Dermatol 1998; 139: 33–39.
- 4. Gupta AK, Batra R, Bluhm R, Boekhout T, Dawson TL Jr. Skin diseases associated with Malassezia species. J Am Acad Dermatol 2004; 51: 785–98.
- Gueho E, Boekhout T, Ashbee HR, Guillot J, van Belkum A, Faergemann J. The role of Malassezia species in the ecology of human skin and as pathogens. Med Mycol 1998; 36: 220–9.
- 6. Ashbee HR, Evans EGV. Immunology of diseases associated with Malassezia species. Clin Microbiol Rev 2002; 15: 21–57.
- 7. Gaitanis G, Magiatis P, Hantschke M, Bassukas ID, Velegraki A. The Malassezia genus in skin and systemic diseases. Clin Microbiol Rev 2012; 25: 106–19.
- 8. Lee YW, Byun HJ, Kim BJ et al. Distribution of Malassezia species on the scalp in Korean seborrheic dermatitis patients. Ann Dermatol 2011; 23: 156–61.
- 9. Leeming JP, Notman FH. Improved methods for isolation end enumeration of Malassezia furfur from human skin. J Clin Microbiol 1987; 25: 2017–9.

- 10. Arsic Arsenijevic V, Milobratovic D, Barac AM, Vekic B, Marinkovic J, Kostic VS. A laboratory-based study on patients with Parkinson's disease and seborrheic dermatitis: the presence and density of Malassezia yeasts, their different species and enzymes production. BMC Dermatol 2014; 14: 5.
- 11. Barac A, Pekmezovic M, Milobratovic D, Otasevic-Tasic S, Radunovic M, Arsic Arsenijevic V. Presence, species distribution, and density of Malassezia yeast in patients with seborrhoeic dermatitis a community-based case-control study and review of literature. Mycoses. 2015; 58: 69-75.