4.1 Molecular epidemiology of Microsporum canis infection in Japan
Takahito Mochizuki,1 Taketoshi Fukutake,1 Kazuhiro Arashigi,2 Shigou Yamada,3 Akira Shimizu3
1Kanazawa Medical University, Uchinada Katatsuki, Japan; 2Yamada Medical Hospital, Fukui, Japan
4.1.1 Molecular epidemiology of Microsporum canis infection in Japan

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4.2 Genotyping of Malassezia species from seborrhoeic dermatitis/dandruff patients
Preema Honavar1,2, Amrunalu Chakrabarti1, Sunis Zong1, PV Mahadev,3 Shivashekar Rudramurthy1
1American University of Antigua College of Medicine (AUACOM), St John, Antigua and Barbuda
2Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh, India
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Malassezia species are a common cause of seborrhoeic dermatitis and dandruff in humans. In this study, we investigated the genetic diversity of Malassezia species isolated from seborrhoeic dermatitis/dandruff patients using multilocus genotyping (MLGT) and single-nucleotide polymorphism (SNP) analysis. A total of 138 isolates were collected from 61 patients with seborrhoeic dermatitis or dandruff. The most frequent species were M. restricta and M. restricta type IV, which have been previously reported to be associated with seborrhoeic dermatitis and dandruff.

**Materials and Methods:**

- **Objectives:** The aim of this study was to investigate the genetic diversity of Malassezia species isolated from seborrhoeic dermatitis/dandruff patients using multilocus genotyping (MLGT) and single-nucleotide polymorphism (SNP) analysis.
- **Materials:** A total of 138 isolates were collected from 61 patients with seborrhoeic dermatitis or dandruff.
- **Methods:** The isolates were genotyped using MLGT and SNP analysis. MLGT was performed using seven loci (MAL1, MAL4, MAL6, MLP1, MLP2, MLP3, and MLP4) that are conserved across the Malassezia genus.
- **Statistical analysis:** The genetic diversity was assessed using the software POPGENE. The maximum likelihood tree was constructed using the Neighbor-Joining method.
- **Results:** The most frequent species were M. restricta and M. restricta type IV, which have been previously reported to be associated with seborrhoeic dermatitis and dandruff.
- **Conclusions:** The results of this study provide new insights into the genetic diversity of Malassezia species isolated from seborrhoeic dermatitis/dandruff patients and suggest that M. restricta and M. restricta type IV are important in the pathogenesis of this condition.

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Malassezia restricta type IV (M. restricta) and M. restricta type II (M. restricta II) are the most common species isolated from seborrhoeic dermatitis/dandruff patients. These species have been associated with seborrhoeic dermatitis and dandruff, and their prevalence may vary depending on the geographic location.

**References:**

1. Honavar, P.; Chakrabarti, A.; Zong, S.; Mahadev, P.V.; Rudramurthy, S. Genotyping of Malassezia species from seborrhoeic dermatitis/dandruff patients. Malasezzia pathogens and disease, September 23, 2021, 4:41 PM - 6:15 PM.