**Malassezia YEASTS AND CLINICAL APPROACH OF DISEASES CAUSED BY M. pachydermatis IN PETS**

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**AIMS**

Malassezia genus is a group of yeasts that may develop disease in humans and animals. The aim of this review is to know all Malassezia species and their identification methods, such as clinical approach of the main pathogenic species in pets, *M. pachydermatis*.

### TAXONOMY

#### Species | Host | Cell morphology | Lipid dependency | SDA (32°C)
---|---|---|---|---
*M. pachydermatis* | Dog, cat/carnivores, birds | Ellipsoidal | - (w) | +
*M. furfur* | Man/cow, elephant, pig, monkey, ostrich, pelican | Globose, ellipsoidal, cylindrical | + | -
*M. sympodialis* | Man/horse, pig, sheep | Ellipsoidal | + | -
*M. globosa* | Man/sheetah, cow | Globose | + | -
*M. obtusa* | Man | Ellipsoidal, cylindrical | + | -
*M. restricta* | Man | Globose, ellipsoidal | + | -
*M. slooffiae* | Man, pig/goat, sheep | Ellipsoidal, cylindrical | + | -
*M. dermatis* | Man | Ellipsoidal, globose | + | -
*M. japonica* | Man | Globose, ellipsoidal | + | -
*M. nana* | Cat, cow/dog | Ellipsoidal | + | -
*M. yamatoensis* | Man | Ellipsoidal | + | -
*M. caprae* | Goat/horse | Globose, ellipsoidal | + | -
*M. equina* | Horse/cow | Ellipsoidal | + | -
*M. cuniculi* | Rabbit | Globose | + | -

#### Identification

| DNA regions | Direct DNA sequencing | Conventional PCR tools employing | Real-time PCR | Fingerprinting methods |
---|---|---|---|---|
| ITS-1 | ITS-1, ITS-2 and LSU | PCR-RFLP | ITS-1 and IT5-2 | PCR-SSCP |
| LSU | | PCR-IT5-1 | ITS-1 and IT5-2 | PCR-IT5-2 |
| chs-2 | | | | |
| ITS-2 | | | | |
| IGS-1 | | | | |

**DNA regions**

- ITS-1
- LSU
- chs-2
- ITS-2
- IGS-1

**CONCLUSIONS**

Regular presence of opportunistic and pathogenic species of *Malassezia* in our society requires a deep understanding of this yeast to be able to control them.

Right knowledge of clinical profile of *M. pachydermatis* in dogs and cats contrast with absence of specific diagnostic criteria, which delay definitive diagnosis and complicate clinical approach to inexperienced veterinary surgeon.