

Mucorales

Mucorales belong to the **fibrous micromycetes, zygomycetes**, which are also called true fungi. They are the cause of numerous systematic **mycoses**, but also saprophytes on plant substrates (eg grain, fruit). They mainly cause **zygomycosis**, which can be divided into *rhinocerebral* and *pulmonary*, as well as infections of severe burns, sepsis and **otomycosis** of the external auditory canal.

Mucorales invade the walls of large blood vessels and, due to their rapid growth, form venous **thrombi** made up of hyphae, leukocytes and platelets, triggering a life-threatening **embolism** that can lead to the death of the patient.

They create **non-septic hyphae** and are furry in appearance with a brownish-gray colour. They grow well in petri dishes, where there will be a massive increase in aerial mycelium. They produce **mycotoxins**, which settle in food and burns. The only effective **therapy** is **amphotericin B**.

The most important genera include: *Absidia spp.*, *Rhizomucor spp.*, *Mucor spp.*, *Rhizopus spp.*

Absidia spp.

With Absidias, it is important to remember that they form clusters of sporangiophores at the top of the stolon arches and small rhizoids. They have a pointed column with typical apophysis and are more sensitive to multiple antifungals. Amphotericin B and itraconazole are primarily used in therapy.

The most important agent is **A. corymbifera**, which causes external otitis, pneumonia and other infections in predisposed individuals.

Mucor spp.

Unlike Absidia, mucors have no rhizoids. They are genera that form branched sporangiophores, resembling Rhizomucor. Important representatives are **M. piriformis** and **M. plumbeus**. They cause rhinocerebral mycoses, otomycosis and infections of extensive burns. **Amphotericin B** is used for therapy. Or **M. mucedo**, which degrades food.

Rhizopus spp.

Rhizopus, on the other hand, above which there are bundles of sporangiophores and arched stolons between them. **Kolumela** is shaped like an umbrella, and the sporangioconids are grooved. Prominent representatives are **R. arrhizus** and **R. microsporus**. They cause diseases like *Mucor spp.*

Other minor members are *Cunninghamella spp.*, which is known to cause nosocomial infections, and *Syncephalastrum spp.*, which has little pathological application to humans.

References

Related articles

- Antifungals
- Yeast
- Pneumonia
- Dermatomycoses

Literature

- VOTAVA, Miroslav, et al. *Lékařská mikrobiologie speciální*. 1. vydání. Brno : Neptun, 2003. 495 s. ISBN 80-902896-6-5.
- JULÁK, Jaroslav. *Úvod do lékařské bakteriologie*. 1. vydání. Praha : Karolinum, 2006. 404 s. ISBN 8024612704.
-



Mucor spp. - Mucor mucedo

■

Recommendation

- BEDNÁŘ, Marek, Andrej SOUČEK a Věra FRAŇKOVÁ, et al. *Lékařská mikrobiologie : Bakteriologie, virologie, parazitologie*. 1. vydání. Praha : Marvil, 1996. 558 s. ISBN 8023802976.

■