

O1016 "S.O.S." : the nationwide french scedosporiosis observational study (2005-2017)

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Background: Invasive scedosporiosis (IS) are severe infections due to poorly susceptible fungi, *Lomentospora prolificans* and *Scedosporium* species. Their epidemiological and clinical characteristics are partially known.

Materials/methods: Proven and probable cases were collected between 2005 and 2017 through our nationwide network of French hospitals. Isolates were sent to the National Reference Centre for Invasive Mycoses and Antifungals where polyphasic identification was performed. Clinical data were completed with the participating centres.

Results: Ninety-one episodes (73% proven) were analyzed (M/F sex ratio: 2.9/1, median age: 60 years (0-86)). The main underlying risk factors were malignancies (36%), trauma (22%), solid organ transplantation (SOT, 17%). The major isolated localizations were musculoskeletal or cutaneous (30%, mostly following trauma) and pleuropulmonary (20%). Dissemination occurred in 33% of cases, mainly in immunosuppressed patients. Central nervous system (CNS) and cardiovascular involvement were respectively reported in 40% and 33% of disseminated infections.

Main species were *S. apiospermum* (52%), *S. boydii* (18%) and *L. prolificans* (15%). Other *Scedosporium* species were uncommon (*S. aurantiacum*: 2%, *Pseudallescheria ellipsoidea*: 5%, *S. dehoogii*: 4%, *S. minutosporum*: 2%, *P. angusta*: 1%). Compared with *Scedosporium* spp., *L. prolificans* was associated with haematological malignancies, neutropenia and dissemination. *S. apiospermum* was associated with hematological malignancies, whereas *S. boydii* was mostly observed among SOT recipients with an increased rate of fungemia ($p < 0.05$). First-line antifungal treatment was prescribed in 94% of cases (voriconazole in 84%), curative surgery was performed in 49%. Three-month mortality was 25%, higher in case of dissemination or infection by *L. prolificans*.

Conclusions: S.O.S. highlights the diversity of clinical presentations of IS with a majority of immunosuppressed patients and frequent dissemination. While the frequency of musculoskeletal, cutaneous or CNS infections have already been described, we observed here unexpectedly high frequency of cardiovascular infections. We found evidence for the influence of the infecting species (*L.*

prolificans versus *Scedosporium* spp. and within *S. apiospermum* complex) on the population at risk, clinical presentation and outcome, underlying the need for accurate identification for optimal management.

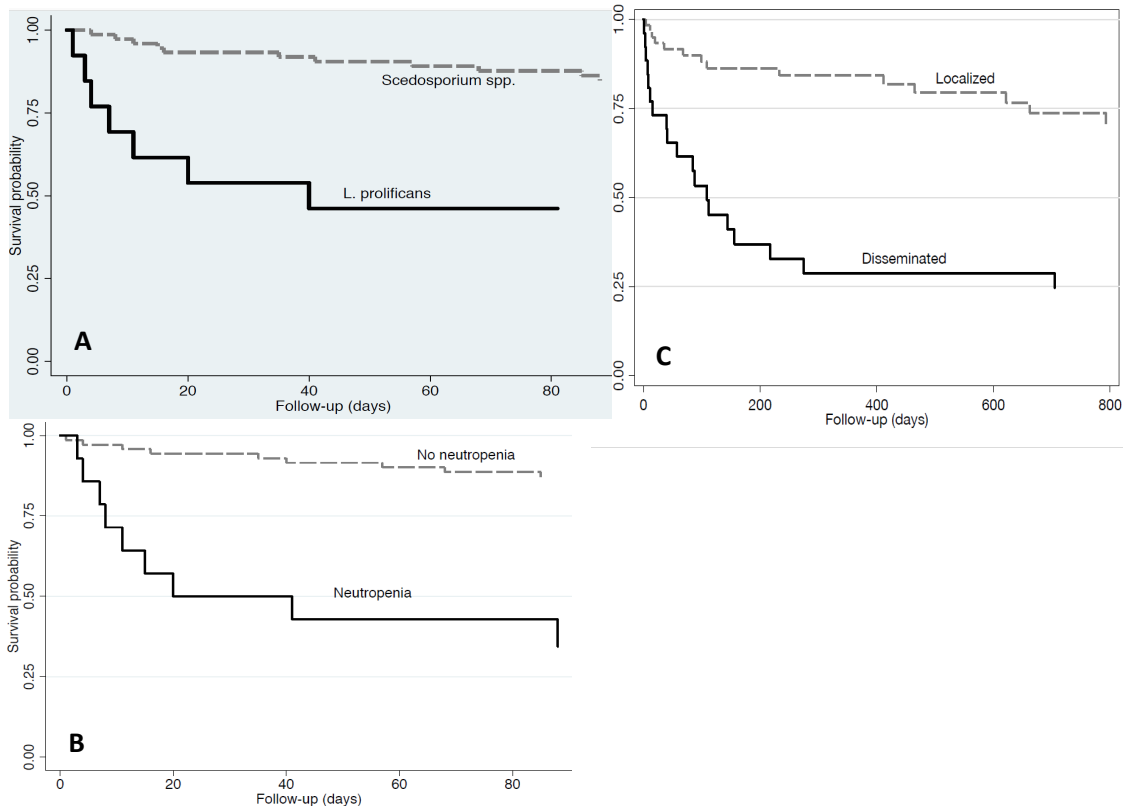


Figure 1: Overall survival (Kaplan–Meier estimates) in patients with IS depending of species (A), neutropenia (B) or dissemination (C). $p < 0.001$ (calculated by the log-rank test)