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O1055 Prognostic factors in 260 adults with invasive scedosporiosis from literature and FungiScope

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Background: Invasive scedosporiosis is an increasing concern due to intrinsic resistance of such pathogens to antifungal therapy. Guidelines recommend voriconazole, amphotericin B and surgery to treat scedosporiosis, irrespective of the causative species. Scedosporium apiospermum is often resistant to amphotericin B but susceptible to posaconazole and voriconazole, whereas Lomentospora prolificans is usually pan resistant. Mortality rates rise to 90%, despite comprehensive treatment. Here, we describe the epidemiology of invasive infections caused by S. apiospermum complex or L. prolificans (LoPro).

Materials/methods: A retrospective analysis of patients with invasive scedosporiosis was conducted to evaluate clinical characteristics and outcomes. Cases diagnosed from January 2000 until August 2017 were collected from the FungiScope™ registry (n=35) and from literature (n=225).

Results: We identified 208 cases with infection caused by S. complex and 52 by LoPro. In the S. complex group, immunosuppression after solid organ transplantation (n=58, 27.9%), in the LoPro group (n=27, 51.9%) treatment for malignancy was the most prevalent risk factor. Most patients had infection of lung, eye or skin (27.7%, 22.3%, and 21.9%). Central nervous system was more often involved in S. complex than in LoPro cases (n=51, 24.5% vs n=5, 9.6%), in 24 (42.9%) disease was localized. Seventy patients (26.9%) had disseminated infection, 34 (48.6%) presented as fungemia. Blood stream infection was more frequent in LoPro than in S. complex cases (46.2% vs 5.8%). Most cases were treated with voriconazole, amphotericin B or itraconazole (n=253, 97.3%). Surgical interventions were performed in 141 (54.2%) patients. All cause mortality in S. complex cases ranged from 12.5% in trauma patients to 55.2% in patients with malignancy, in the LoPro group from 28.6% in surgical patients to 85.2% in patients with malignancy. Predictors for worse outcome in the S. complex group were disseminated disease and CNS involvement in transplant recipients, and lung involvement in patients with malignancy ($p<0.03$). In LoPro cases, malignancy and fungemia were associated with worse outcome ($p=0.012$).

Conclusions: Clinical presentation and outcome varies between S. complex and LoPro cases and between risk groups in both. Blood stream infections and CNS involvement are associated with worse outcome. Effective treatments are needed to improve patient outcome.