Invasive aspergillosis in elderly patients

Background.
Invasive aspergillosis (IA) in elderly patients is not well understood.

Objectives
Analysis of underlying diseases, risk factors, etiology, clinical features, treatment and survival rates in elderly patients with IA.

Materials and methods
Retrospective analysis of the register data in 1998-2019 yy. We included 646 adult patients with proven and probable IA. For diagnosis of IA we used criteria EORTS/MSG, 2008. In group I we included 137 patients with IA ≥ 60 years old, males – 60%. The control group consisted of 509 patients aged from 18 to 59 years, males – 53%.

Results
In elderly patients non-Hodgkin's lymphoma prevailed (35% vs 13%, p <0.05) among underlying diseases, whereas other hematologic diseases were less common: acute lymphoblastic leukemia (6% vs 13%, p <0.05), Hodgkin's lymphoma (6% vs 13%, p <0.05), (Fig.1).

Non-hematological diseases were more frequent in elderly patients (23% vs 13%, p=0.002).

We identified differences in risk factors between the two groups: prolonged agranulocytosis was detected in 59% vs 75%, (p=0.0003), lymphocytopenia - 45% vs 60%, (p=0.002). Significantly smaller numbers of elderly patients were recipients of allogeneic stem cell transplants (3% vs 26%, p=0.00001) and received immunosuppressive therapy (17% vs 31%, p=0.0002), Fig.2.

No significant differences were obtained in the clinical symptoms and localization of the fungal infection (Fig.3,4).

Conclusion
in elderly patients underlying non-hematological diseases were more frequent – 23%. The features of risk factors in elderly patients were less severe immunosuppression: prolonged agranulocytosis – 59%, lymphocytopenia – 45%, allogeneic stem cell transplants – 3%, immunosuppressive therapy - 17%.

The overall 12-week survival in elderly patients with IA was not significantly different (82% vs 79%).