



Invasive aspergillosis in pediatric patients with malignancies: retrospective register review

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Introduction

Invasive aspergillosis (IA) is an important cause of morbidity and mortality in patients with malignancies. There is limited number of publications about IA in pediatric patients with malignancies.

Aim

To identify risk factors and clinical features of IA in pediatric patients with malignancies.

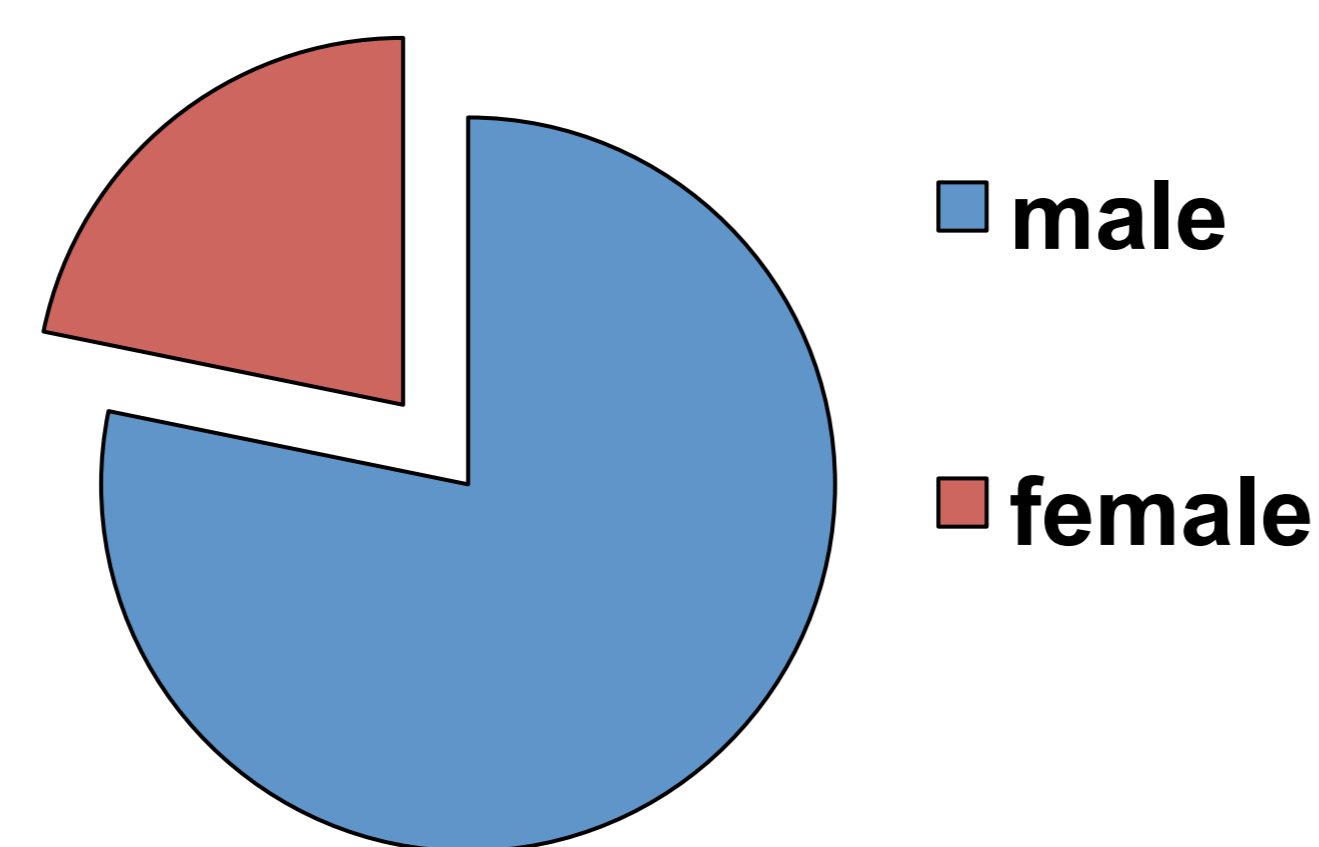
Methods

Retrospective analysis of IA cases in children with pediatric patients with malignancies from 1997 to August 2019 was done. EORTC/MSG, 2008 diagnostic criteria were used.

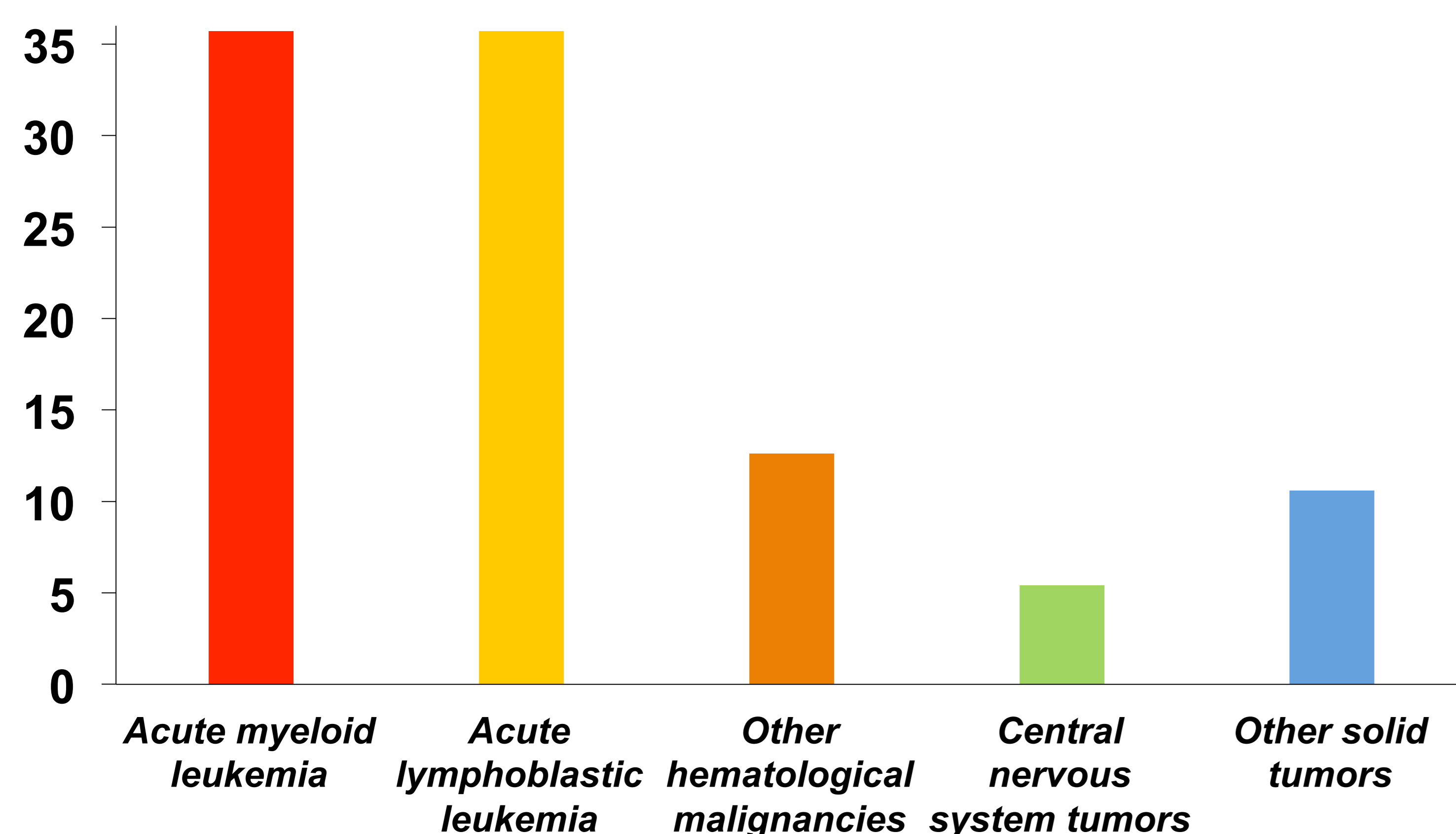
Results

Total number of patients - 56

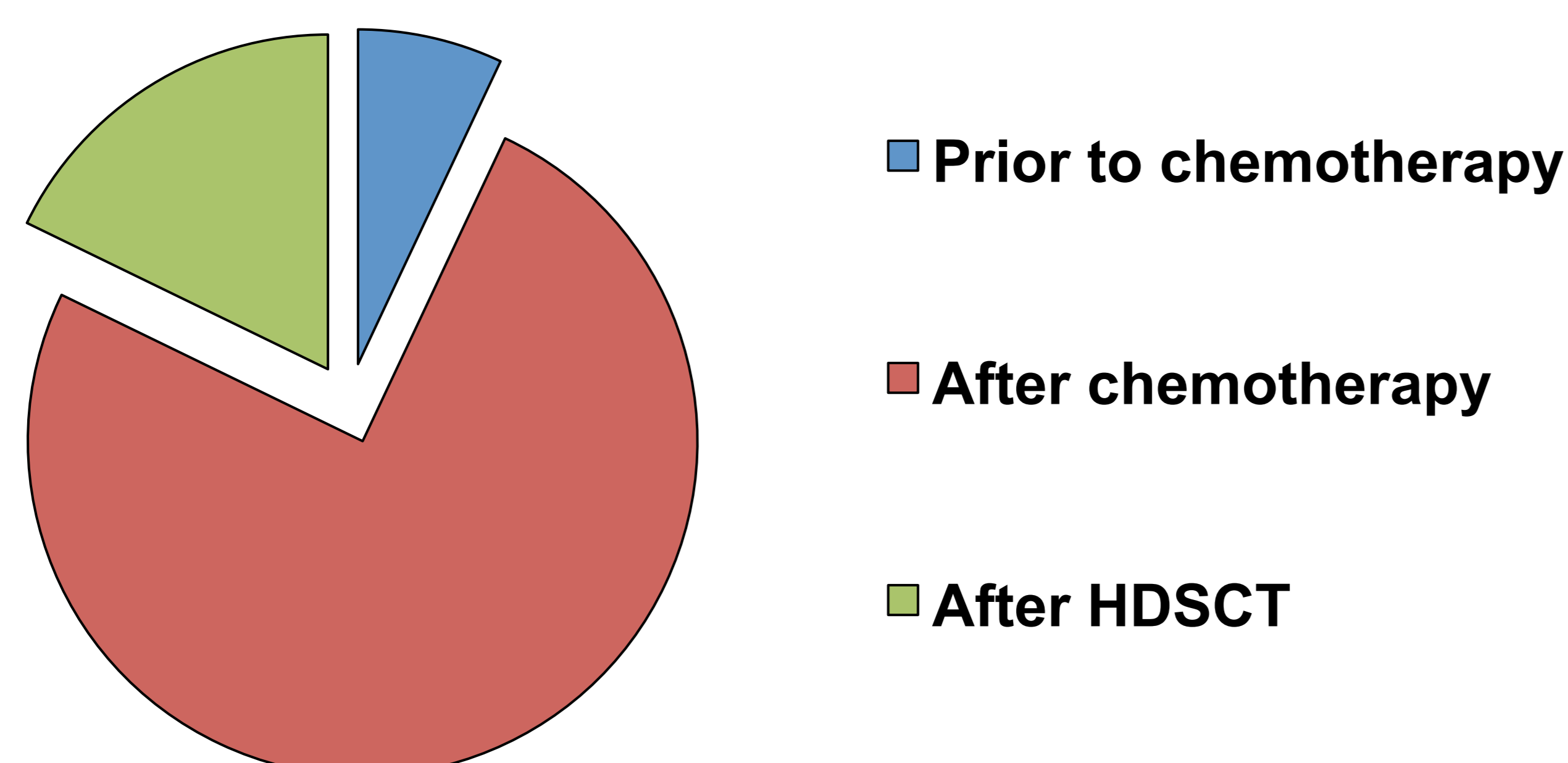
Median age – 9,5 years



Underlying diagnosis, %



Time of diagnosis verification, %



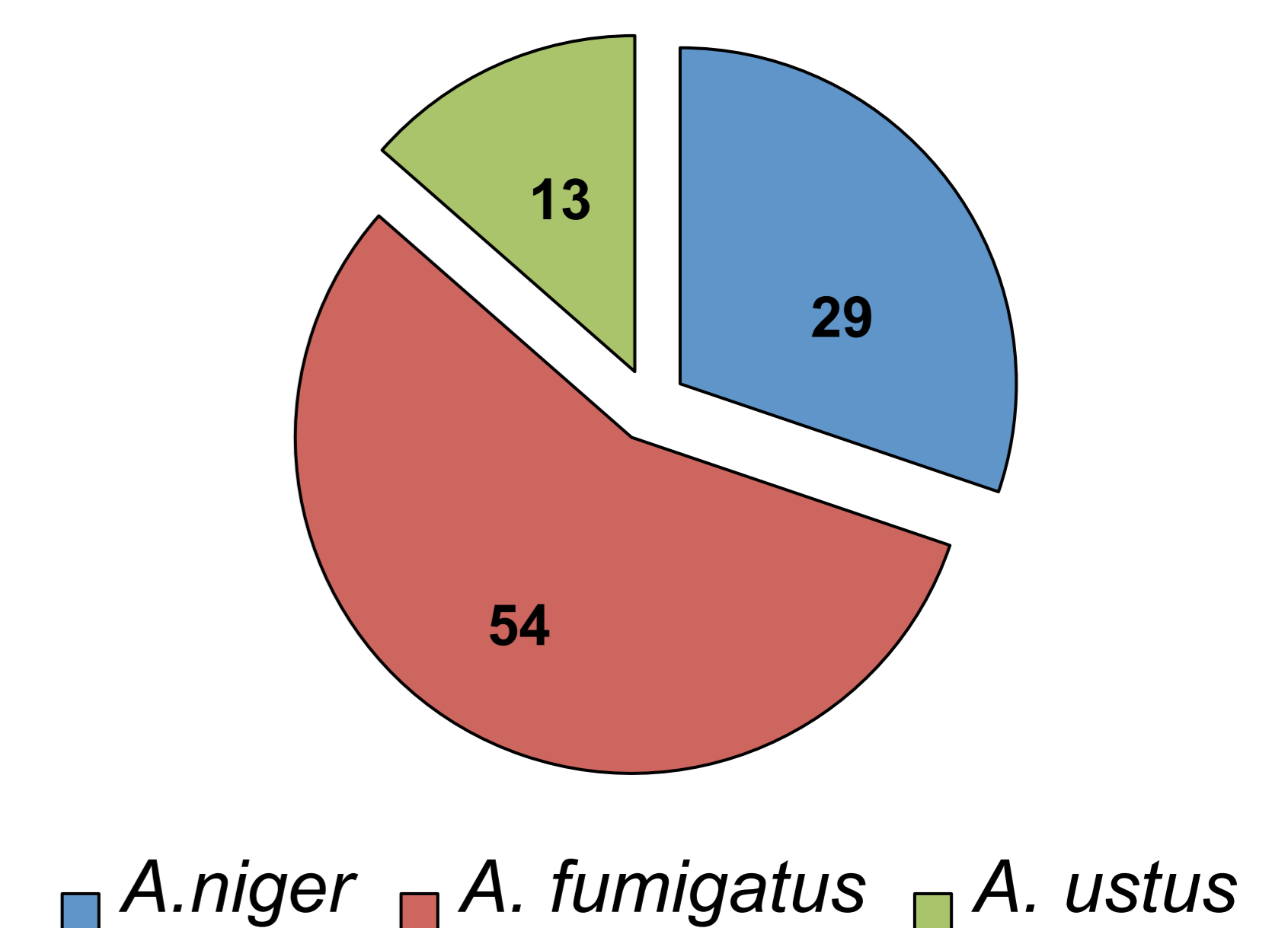
Risk factors of invasive aspergillosis

Risk factors	n= 56
Neutropenia >10 days ANC < 0,5x10 ⁹ /л	89,2%
median, days	23,6
Lymphocytopenia ALC < 1,0x10 ⁹ /л	60,7%
median, days	19,8
Glucocorticosteroid therapy	70%
CMV infection	17,8%

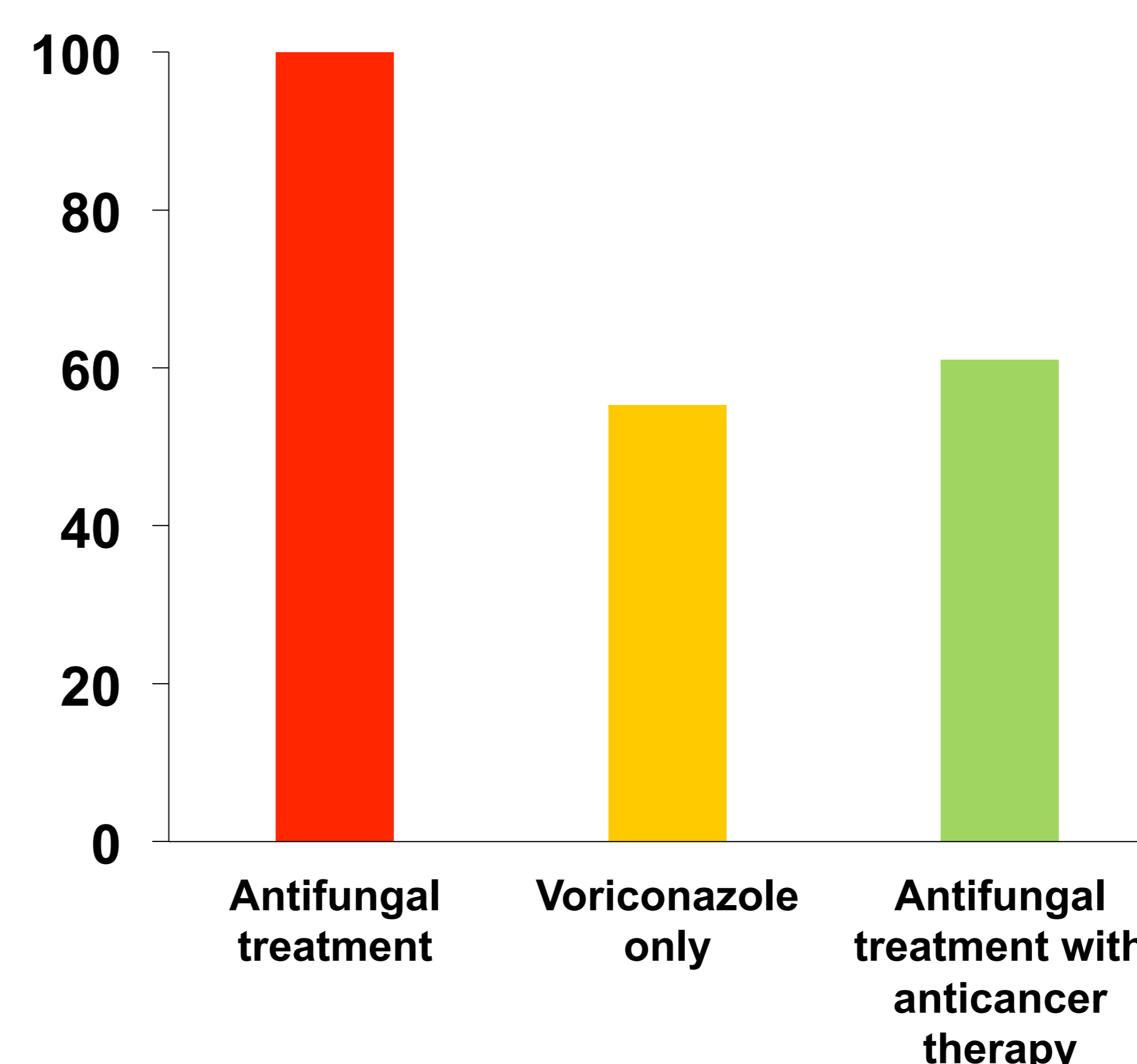
Clinical data

Clinical signs	non-specific
Main site: lungs	87,5%
CT signs	
“halo sign”	39,2%
“air crescent sign”	3,5%
Bronchoscopy + BAL	62,5%
Galactomannan test	
positive in serum or CSF	33%
positive in BAL	86%
Mycological examination	23%

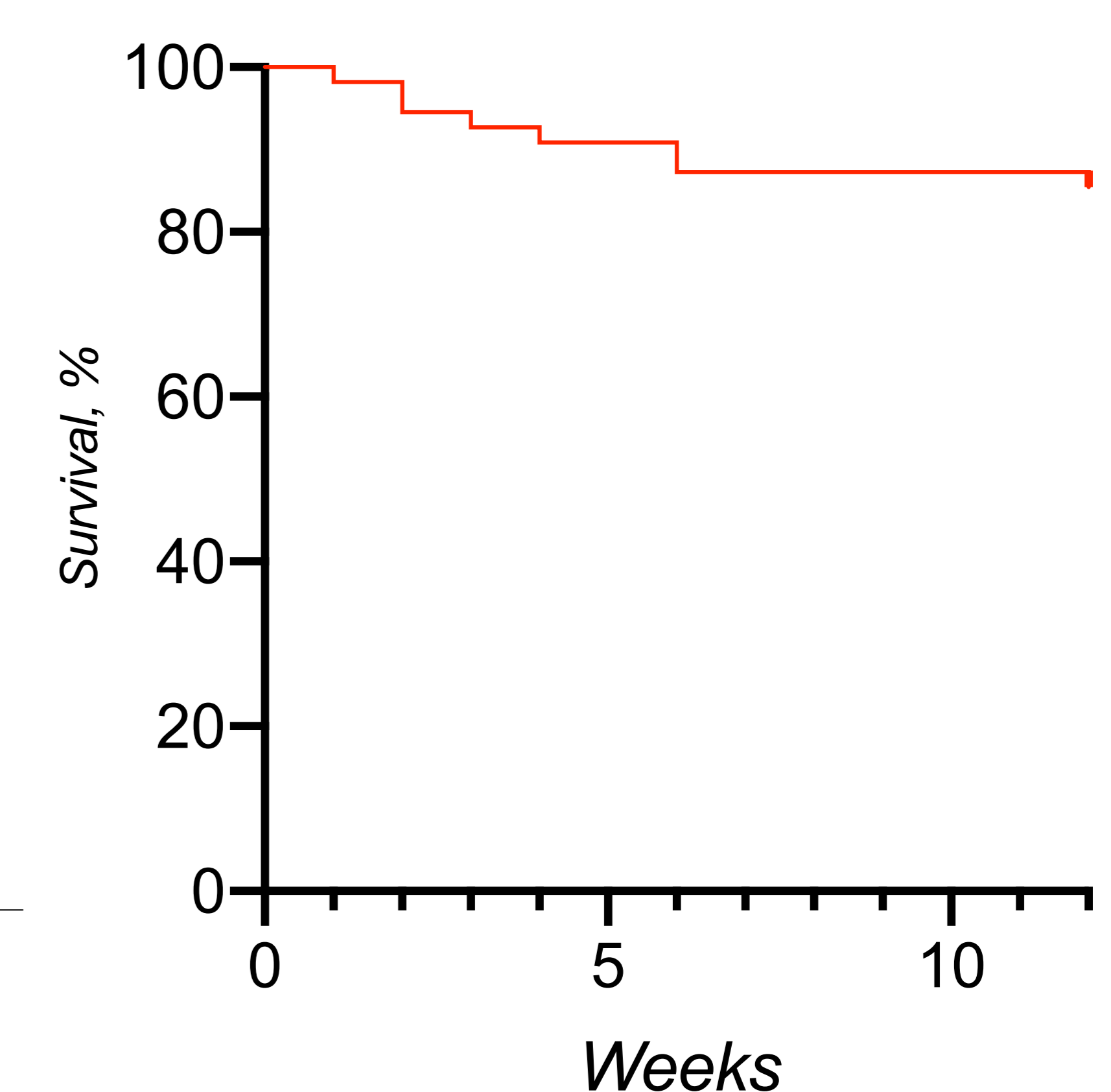
Etiology, %



Treatment, %



Survival, %



Conclusions

Cases of IA in children with hematological malignancies were registered more frequently compared to solid tumors (84% vs 16%). Risk factors of IA were prolonged neutropenia (89,2%), steroid therapy (70%), and lymphocytopenia (60,7%). Voriconazole monotherapy was used in 55,3% patients. 12-weeks overall survival was 85,5%.