Management of Candida Krusei Candidemia in Patients with Acute Myeloid Leukemia

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Background

Candida krusei is a budding yeast and it's an emerging nosocomial fungal pathogen found primarily in immunocompromised individuals and those with hematologic malignancies.

Candidemia represents 10% of nosocomial infections in hospitalized patients and is associated with mortality described to be as high as 40%. Underlying immune defect, solid or hematological malignancy, may predispose patients to candidemia, which develops during the clinical course of these conditions in 1.8% of cases.

Objective

The aim of our study is to evaluate the therapeutic management of candidemia due to Candida Krusei in our patients.

Patients & Methods

Study	▪ Descriptive and prospective study.
Period	▪ 1 year from january to december 2021.
Place	▪ Protected unit (AML and aplastic anemia). ▪ Departement of hematology and pediatric oncologie.
Patients	▪ Adult patients over 18 years of age, with acute myeloid leukemia who presented an episode of febrile neutropenia,and in whom a blood culture was positive for Candida krusei.

Results

❖ 140 patients hospitalized on the protected side, 36 patients presented with candidemia due to Candida Krusei , i.e., 26% of patients .

❖ Table 1: patients caracteristics

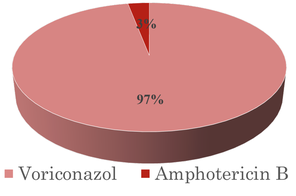
Caracteristics	N	%
Age (Median/Range)	42 years	(19Y-81Y)
Sex: Female	15	42
Male	21	58
Duration of hospitalization (Median/Range)	26 Days	(15-68 Days)
the chemotherapy treatment :		
Induction	21	58
Consolidation	9	25
Salvage treatement	6	17
risk factors :		
-hematological malignancy,	36	100
- severe neutropenia <500 NPN,	36	100
-antibiotic prophylaxis based on ciprofloxacin.	36	100
-antifungal prophylaxis based on fluconazole.	36	100
-central venous catheter	6	17
Clinical signs:		
Fever	36	100
Mucositis	21	58
Skin infection	5	14
Diarrhea	5	14
Respiratory signs	4	11
Biological signs:		
High C-reactive protein	31	86
Hyopkaliemia	12	33
Hyernatremia	2	5
Hyponatremia	1	3
Hypocalcemia	1	3
Positif serum galacyomannan antigenomia assay	2	5
Candida Kruei Postive blood culture:		
With IRAB:	36	100
With Enterococcus Faecalis:	4	11
	1	3

❖the EQUAL score was between 8 and 10 for all our patients.

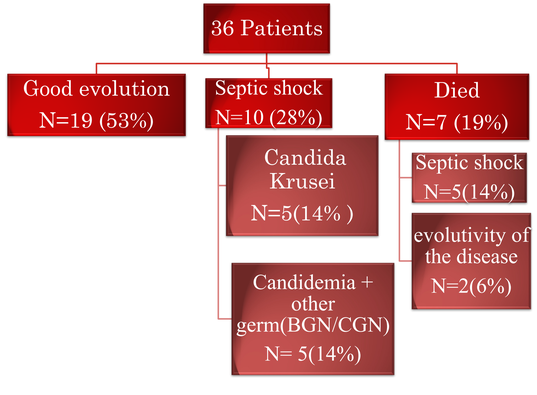
❖ Table 2: antifungiogram of candida krusei isolated in our patients

Antifongul	sensitivity
Amphotericin B	sensitive
Fluconazol	resistant

❖ Figure 1: Treatement



❖ Figure 2: Evolution



Discussion/Conclusion

Our results confirm the high mortality of candidemia in patients with hematology malignity, this is due to the variety of risk factors to which they are exposed as well as the difficulty of their management, especially in the initial phase of their illness.
hence the interest of improving hospital hygiene, establishing protocols for the proper use of new generation antifungals for better management of these significantly particular patients.
the EQUAL score assigns a numerical value to compliance with specific guideline recommendations, based on available microbiological data, follow-up cultures, echocardiography, ophthalmological examination, selection and adjustment of antifungals and catheter management, will allow better management and care of patients with candidemia in our care structure.

References

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