SOHO ANNUAL MEETING 2024

INCIDENCE OF ORAL FUNGAL INFECTIONS (OFIS) IN POST HEMATOPOIETIC STEM CELL TRANSPLANTATION (HSCT) PATIENTS, SINGLE CENTER EXPERIENCE.

Mohammed Nahed Attia Mohammed [1], Mai Mostafa Aly [2], Merit Rafeek Botros [2], Nabila Faiek Ameen [3].
[1] Oral & Maxillofacial Surgery Department, Faculty of Dentistry, Assiut, Egypt.
[2] Clinical Hematology and BMT Unit, Faculty of Medicine, Assiut, Egypt.
[3] Internal Medicine Department, Faculty of Medicine, Assiut University, Assiut, Egypt.
Key Words: Oral fungal infections, Post-HSCT

INTRODUCTION

Oral fungal infections (OFIs) are common in HSCT recipients especially in the neutropenic phase. Oral examination prior to conditioning regimen and after HSCT day is mandatory to maintain good oral health.

AIM

The objective of the study is to describe the density and the impact of OFIs in HSCT recipients during first 100 days.

METHOD

A prospective cross-sectional study (NCT05758207) included 25 cases with median age 37 years (19-57) , 56% females. Majority (n=22,88%) had autologous HSCT and three cases had allogeneic HSCT from fully matched sibling donor in Clinical Hematology and BMT Unit, Assiut University.

RESULTS

The included cases previously diagnosed as Hodgkin lymphoma (n=10,40%) treated with ABVD, DHAP ± ICE protocols, multiple myeloma (n=8,32%) treated with VCD, VRD ± Daratumumab , non-Hodgkin lymphoma (n=4,16%) treated with R-CHOP, R-DHAP ± ICE protocols and AML (n=3,12%) treated with 3&7+HiDAC protocol. All cases start at D-1 prophylaxis with fluconazole, acyclovir, levofloxacin and sulphamethoxazole + trimethoprim.

The existing oral hygiene protocol was combination of 0.12% chlorhexidine gluconate, sodium bicarbonate and 5000IU of nystatin swished and swallowed by the patient four times a day.

The incidence of observed OFI during first 100 days was (n=10;40%) with median occurrence in day plus 4.5 (range 2-9). The infected cases receive voriconazole treatment and median day of improvement was plus 10.5 (8-15). OFIs post HSCT did not affect patients' survival (*P*=0.7).

Table 1: Patients' Characteristics

Number	**25**
Female n (%)	**14 (56%)**
Age median (range)	**37 years (19-57)**
HSCT	
Autologous	22 (88%)
Allogeneic	3 (12%)
Diagnosis %	
Hodgkin Lymphoma	10 (40%)
Multiple Myeloma	8 (32%)
Non-Hodgkin Lymphoma	4 (16%)
AML	3 (12%)
CBC before conditioning median	
(range)	
WBC	$5.8x10^9$/L (4.7-15)
ANC	$2.5x10^9$/L (1.2-6.3)
Hemoglobin	12.5g/dl (6.2-14.1)
Platelet	$221x10^9$/L (36-368)
Conditioning regimen n %	
BEAM	14 (56)
HDM	8 (32)
BU/CYC	3 (12)

AML; Acute myeloid leukemia, ANC; absolute neutrophil count, BEAM; carmustine, etoposide, cytarabine, melphalan, BU/CYC; busulphan, cyclophosphamide, HSCT; hematopoietic stem cell transplantation, HDM; high dose melphalan, WBC; white blood cells

Figure1: Pre-transplant dental assessment

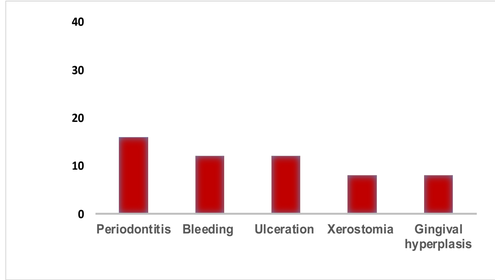
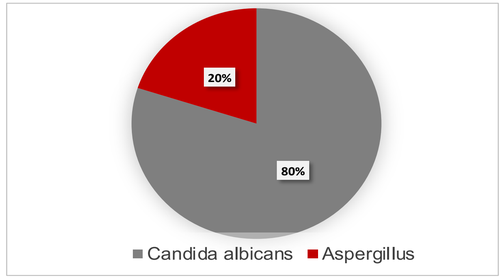


Figure2: Causative organism



CONCLUSIONS

In conclusion despite of pre-transplant thoroughly dental assessment and primary prophylaxis still OFIs is a significant problem in HSCT recipients.

REFERENCES

Francisconi, C. F., Caldas, R. J., Oliveira Martins, L. J., Fischer Rubira, C. M. & da Silva Santos, P. S. Leukemic oral manifestations and their management. Asian Pacific J. Cancer Prev. 17, 911–915 (2016).
Jhamb, T., Syed, A. Z. & Baur, D. Recognizing Oral Manifestations of Multiple Myeloma. *J. Mass. Dent. Soc.* **64**, 18–19 (2015).