



THE IMPACT OF ORAL MUCOSITIS IN TRANSPLANTED PEDIATRIC PATIENTS PREVENTIVELY TREATED WITH LOW-LEVEL LASER THERAPY

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ABSTRACT

- Oral mucositis (OM) is considered the most relevant oral toxicity observed during anti-neoplastic therapy given its high frequency and clinical relevance.
- It is observed in virtually 100% of the patients irradiated in the oral cavity and in over 80% of patients submitted to chemotherapy and HSCT
- It is characterized by the presence of painful, ill-defined ulcerations that predominantly affects the tongue, buccal mucosa and the soft palate
- Preventive professional dental care and the use of low level laser therapy (LLLT) seem to reduce the incidence of OM in pediatric and adult patients submitted to HSCT
- Aim: To describe the clinical presentation of OM in a sample of pediatric patients submitted to allogeneic HSCT and preventively treated with professional dental care and LLLT

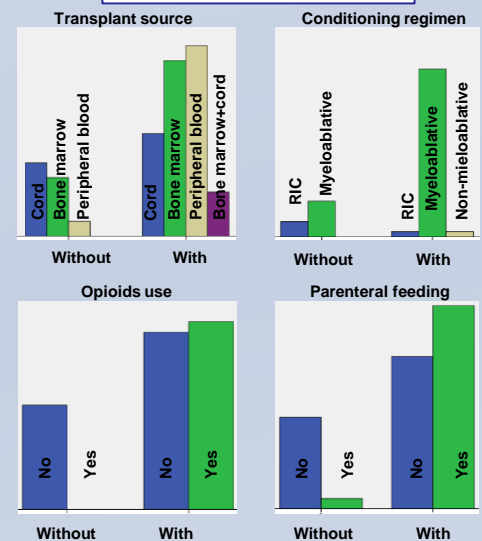
METHODS

- A retrospective analysis was done based on 45 consecutive pediatric patients younger than 20 years of age who had received allogeneic HSCT between January 2013 and January 2016 at the Hospital Sírio-Libanês (São Paulo/Brazil).
- All stem cell sources and donor types, and both myeloablative and reduced-intensity conditioning regimens were included in this analysis
- patients' informations were collected from their medical and dental charts
- Overall survival rate was defined as the time between the HSCT and the last follow-up or the patients' death
- All patients received preventive professional dental care and low level laser therapy
- Fisher's exact test was used to investigate the association of OM with clinical parameters. Kaplan-Meier survival curves were compared with Log-rank test.

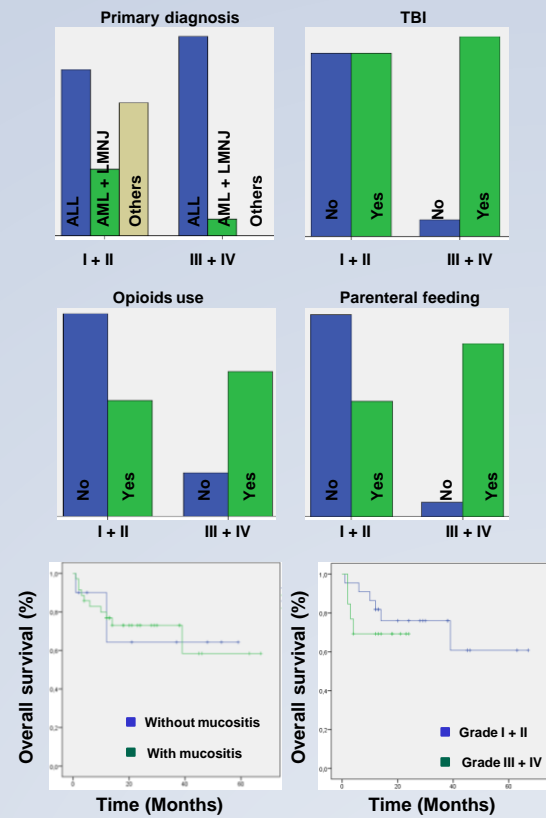
RESULTS

VARIABLES	N (%)	Association with presence of oral mucositis (p-value)	Association with oral mucositis aggressiveness (p-value)
Sex			
Male	35 (77.8)	1.00	0.21
Female	10 (22.2)		
Age			
> 8.0	21 (46.7)	0.15	0.48
< 8.0	24 (53.3)		
Primary diagnosis			
ALL	24 (53.3)	0.53	0.005*
AML+JMML	9 (20.0)		
Others	12 (26.7)		
Donor type			
Related	11 (24.4)	0.23	0.68
Unrelated	33 (73.3)		
NS	1 (2.2)		
Transplant source			
Cord	12 (26.7)	0.023*	0.83
Peripheral blood	14 (31.1)		
Bone marrow	16 (35.6)		
Bone marrow+cord	3 (6.7)		
Conditioning regimen			
RIC	4 (8.9)	0.01*	1.00
Myeloablative	40 (88.9)		
Non-myeloablative	1 (2.2)		
TBI			
Yes	27 (60.0)	0.16	0.01*
No	18 (40.0)		
Opioids use			
Yes	18	0.003*	0.035*
No	27		
MTX			
Yes	23 (51.1)	0.16	0.08
No	22 (48.9)		
Mucositis			
Yes	35 (77.8)	NA	NA
No	10 (22.2)		
Grade of mucositis			
0	10 (22.2)	NA	NA
1 + 2	22 (48.9)		
3 + 4	13 (28.9)		
Time of hospitalization			
> 54.5 days	10 (22.2)	1.00	1.00
< 54.5 days	35 (77.8)		
Parenteral feeding			
Yes	21 (46.7)	0.012*	0.002*
No	24 (53.3)		
Follow-up status			
Died	13 (28.9)	1.00	1.00
Alive	32 (71.1)		

Presence of mucositis



Grade of mucositis



NA: Not applied. RIC: Reduced intensity regimen. GVHD: Graft-versus-host disease. MTX: Methotrexate. TBI: Total body irradiation. ALL: Acute lymphoblastic leukaemia. AML: Acute myeloid leukaemia. JMML: Juvenile Myelomonocytic Leukemia* Statistically significant.

CONCLUSIONS

OM in transplanted pediatric patients preventively treated with LLLT and dental care is not a significant predictor of time of hospitalization and survival, but still increasing the use of opioids and parenteral feeding.

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