Romée I.C. Slief*/**, Alexa M.G.A. Laheij*/**, Frederik R. Rozema*/ **, Jan de Lange*, Judith E. Raber-Durlacher*/**

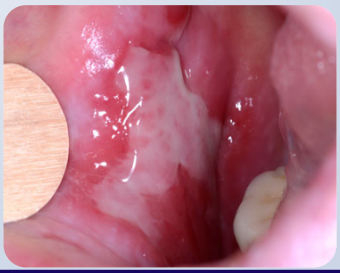
* Department of Oral and Maxillofacial Surgery, Academic Medical Center Amsterdam (AMC), University of Amsterdam, and ** Department of Oral Medicine, Academic Centre for Dentistry Amsterdam (ACTA), University of Amsterdam and VU University, Amsterdam, The Netherlands **a.laheij@acta.nl**

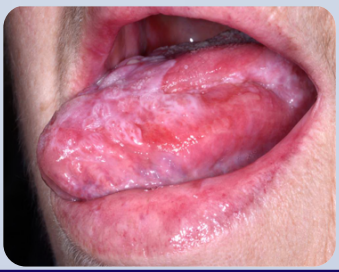
INTRODUCTION

Chronic Graft versus Host Disease (cGvHD) is a bothersome complication of allogeneic hematopoietic stem cell transplantation (HSCT). The oral cavity is often affected, presenting with mucosal changes, hyposalivation, xerostomia (subjective dry mouth), or less frequently sclerodermatous changes.

Aims:

- To study associations between clinician-rated and patient-rated oral cGvHD assessments.
- to examine the influence of oral cGvHD on patients' Quality of Life (QoL).





METHODS

Sixteen adult patients (10 male, 6 female; mean age 54.5, range 30-69 yrs) diagnosed with oral cGvHD filled out questionnaires on oral symptoms (PRO-oral cGvHD) and QoL (OHIP-14, EORTC QLQ-C30/OH-17). Mucosal changes were scored (NIH-score), 5 min whole salivary flow rates (stimulated and unstimulated), and intercisal mouth opening were assessed. Permission of the Institutional Review Board and informed consent were obtained.

Data analysis was performed using IBM SPSS 20.0. Spearman correlations were calculated and the Mann-Whitney U test was used to analyze xerostomia and salivary flow. A p-value < 0.05 was considered statistically significant.

RESULTS

A strong correlation was found between objective and subjective oral dryness (r =-0.92, p<0.01) (Table 1, Fig 1).

OH17	0.82**	-0.64**	-0.84**
	Oral Dryness	-0.69**	-0.92**
		US	0.81**
			SS

Table 1. Correlations between objective salivary flow and xerostomia. US= unstimulated whole saliva; SS= stimulated whole saliva ** p < 0.01

Objective and subjective assessments of oral mucosal cGvHD did not correlate (Table 2).

NIH	0.432†	-0.060	0.137	0.273	0.077
	oral sensitivity	0.482†	0.481†	0.541*	0.562*
		Oral pain	0.330	0.414	0.468†
			OH17 PD	0.354	0.562*
				OH17 EA	0.715**
					OHIP- 14

Table 2. Correlations between NIH cGvHD score, oral pain/discomfort (PRO, OH17 PD), having trouble eating (OH17 EA), and Oral Health Impact Profile (OHIP-14)
† 0.05> p <0.1 * p <0.05 ** p< 0.01

Having trouble eating and oral pain/discomfort were associated with decreased QoL (r = -0.599 p = 0.014: r = -0.614 p = 0.011 respectively).

No significant correlations were found between mucosal GvHD, oral dryness, and sclerosis (not shown).

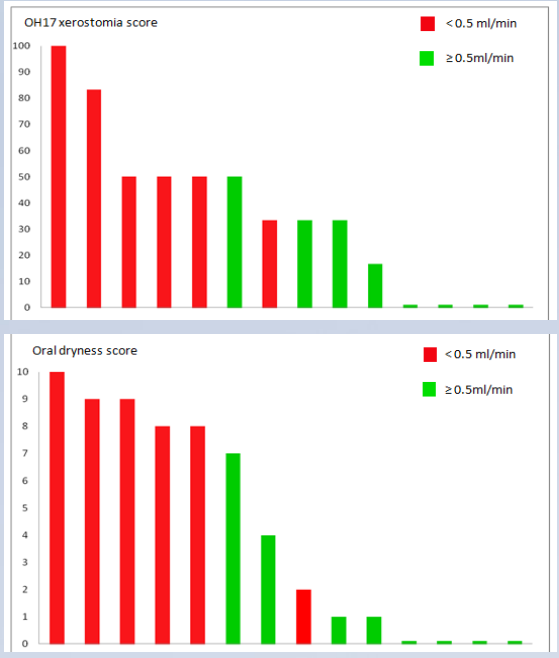


Fig 1. Y-axis: OH-17 xerostomia and oral dryness score. X-axis: Patients were ranked from high to low scores. Group 1 (in red, SS < 0.5ml/min, i.e. hyposalivation); Group 2 (in green, SS ≥ 0.5ml/min).

High xerostomia scores were significantly more frequent in the hyposalivation group.

CONCLUSIONS

- Objective and subjective oral dryness were strongly associated.
- Clinician-, and patient-rated assessment of oral mucosal cGvHD did not correlate.
- Having trouble eating and oral pain and discomfort were associated with diminished QoL.
- No associations could be identified between mucosal cGvHD, dryness, and sclerodermatous changes, suggesting that these features may occur in isolation.
- **Our results point to the importance of including patient-reported outcomes in clinical evaluation of oral cGvHD.**

We thank the Johannes Stichting for their support