CONCLUSIONS: Oral mucosal lesions are prevalent in hemodialysis patients. Oral candidiasis appears to be a risk factor for death.

Marinella Ruospo, Suetonia C Palmer, Giusi Graziano, Patrizia Natale, Valeria Saglimbene, Massimo Petruzzi, Michele De Benedittis, Jonathan C Craig, David W Johnson, Pauline Ford, Marcello Tonelli, Eduardo Celia, Ruben Gelfman, Miguel R Leal, Marietta Török, Paul Stroumza, Luc Frantzen, Anna Bednarek-Skublewska, Jan Dulawa, Domingo del Castillo, Staffan Schön, Amparo G Bernat, Jörgen Hegbrant, Charlotta Wollheim, Letizia Gargano, Giovanni FM Strippoli on behalf of the ORAL-D Investigatorson behalf of the ORAL-D Investigators

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ORAL MUCOSAL LESIONS AND ASSOCIATION WITH MORTALITY IN HEMODIALYSIS PATIENTS: A PROSPECTIVE COHORT ANALYSIS (ORAL-D SUBSTUDY)

Marinella Ruospo[1], Suetonia Palmer[2], Giusi Graziano[1], Patrizia Natale[3], Valeria Saglimbene[4], Jonathan Craig[5], David W Johnson[6], Marcello Tonelli[7], Eduardo Celia[1], Rubén Gelfman[1], Jua Duława[8], Anna Bednarek-Skublewska[8], Marietta Török[8], Paul Stroumza[8], Castillo, Domingo Del[8], Amparo Bernat[1], Jörgen Hegbrant[1], Charlotta Wollheim[8], Letizia Gargano[1], Giovanni Strippoli[1]

[1]Diaverum Sweden AB, Lund, Sweden, [2]University of Otago Christchurch, Christchurch, New Zealand, [3]University of Bari, Bari, Italy, [4]The University of Sydney, Sydney, Australia, [5]Flinders University at Victoria Square, Adelaide, Australia, [6]Metro South and Ipswich Nephrology and Transplant Service, Brisbane, Australia, [7]University of Calgary, Calgary, Canada and [8]Diaverum, Lund, Sweden

INTRODUCTION: Impaired oral health is prevalent and frequently severe among adults treated with long-term hemodialysis. We evaluate the prevalence of oral mucosal lesions and association with total and cardiovascular mortality among hemodialysis patients.

METHODS: We did a planned analysis of ORAL-D. ORAL-D is a prospective multinational cohort study evaluating a standardized oral and dental examination among 4726 hemodialysis. Oral mucosal lesions included ulceration, red lesion, white lesion, geographical tongue, fissured tongue, candidiasis and herpes per WHO guidelines. The association between mucosal lesions and all-cause and cardiovascular mortality was estimated using a Cox proportional hazard regression model adjusted for age, sex, education, smoking history, prior myocardial infarction, diabetes, hemoglobin, serum albumin, serum phosphorus, time on dialysis and body mass index, and clustered by country. The outcomes were prevalence and all-cause and cardiovascular mortality.

RESULTS: 4205 adults (mean age 61.6 ± 15.6 years) had a complete oral examination. 40% had at least 1 mucosal lesion. The point prevalence of oral lesions was (in ascending order of frequency): oral herpes 0.5%, mucosal ulceration 1.7%, neoformation 2.0%, white lesion 3.5%, red lesion 4.0%, oral candidiasis 4.6%, geographical tongue 4.9%, petechial lesions 7.9%, and fissured tongue 10.7%. During median follow-up of 3.5 years, 2114 patients died (1013 from cardiovascular causes). Oral candidiasis was associated with all-cause mortality (adjusted hazard ratio (aHR) 1.37, 95% CI 1.00 to 1.86) and cardiovascular mortality (aHR 1.64, 95% CI 1.09 to 2.46). There was no association observed for any other oral mucosal lesion with mortality.