



## ABSTRACT

### The use of 25(OH)D saliva test as a substitute for 25(OH)D serum test in healthy people

Nutri Virtual Symposium 2020

Nutrition Battling on Pandemic COVID-19: How to Survive

Link to DOI: 10.25220/WNJ.V04.S3.0027

Journal Website: [www.worldnutrijournal.org](http://www.worldnutrijournal.org)

Dina Keumala Sari<sup>1</sup>, Liza Meutia Sari<sup>2</sup>, Lidya Imelda Laksmi<sup>3</sup>

<sup>1</sup>Nutrition Department, Faculty of Medicine, Universitas Sumatera Utara

<sup>2</sup>Oral Medicine Department, Faculty of Dentistry, Universitas Syah Kuala, Banda Aceh,

<sup>3</sup>Anatomy-Pathology Department, Faculty of Medicine, Universitas Sumatera Utara

**Background and Objectives:** Examination of serum 25(OH)D levels of vitamin D in the body circulation illustrates the level of circulating vitamin D, while serum 1.25(OH)D is used to describe vitamin D activity. Several studies have shown that there is a non-invasive test that can be done to check vitamin D levels, namely through salivary levels. This study aims to determine the ratio between serum 25(OH)D and 1.25(OH)D serum levels and to compare the levels in saliva.

**Methods:** This study was a cross-sectional study that included 36 healthy people, male and female, aged 18-35 years old, living in Medan, North Sumatra. The tests performed were levels of 25(OH)D, 1.25(OH)D in serum and saliva.

**Results:** The mean serum 25 (OH) D level was 17.22±4.37 ng/mL and the 25(OH)D saliva level was 3.46 ng/mL for the minimum value and 51.0 ng/mL for the maximum value (median: 6.01 ng/mL). The results showed a relationship between 25(OH)D saliva and serum 25(OH)D levels ( $p=0.04$ ). There was no relationship between the levels of 1.25(OH)D in saliva and serum 1.25(OH)D.

**Conclusion:** There was a relationship between 25(OH)D saliva and 25(OHD) serum levels in healthy people. Salivary 25(OH)D levels can be used as a non-invasive laboratory test compared to serum 25(OH)D levels.

**Keywords:** vitamin D, 25(OH)D, saliva test

**Acknowledgement:** Funded by: Deputy for Strengthening Research and Development, Ministry of Research and Technology / National Research and Innovation Agency for the 2020 Fiscal Year in accordance with the Research Contract Amendment Number: 11 / AMD / E1 / KP.PTNBH / 2020, dated 11 May 2020

#### Presenting author information:

Name: Dina Keumala Sari

Affiliation: Nutrition Department, Faculty of Medicine,

Email: [dina@usu.ac.id](mailto:dina@usu.ac.id)