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

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Dina Keumala Sari¹, Liza Meutia Sari², Lidya Imelda Laksmi³
¹Nutrition Department, Faculty of Medicine, Universitas Sumatera Utara
²Oral Medicine Department, Faculty of Dentistry, Universitas Syah Kuala, Banda Aceh,
³Anatomy-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(OH)D 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


Presenting author information:
Name: Dina Keumala Sari
Affiliation: Nutrition Department, Faculty of Medicine,
Email: dina@usu.ac.id