Oral hygiene status based on blood types of dentistry students

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ABSTRACT

Introduction: Oral hygiene status can be measured by OHI (Oral Hygiene Index) the which is influenced by four factors: environmental, behavioral, hereditary and health services. Plaque and calculus Become an indicator of OHI, roomates poor OHI is one of the main causes of periodontal disease. Blood type as hereditary factors may be a risk factor for periodontal disease. More over, a dental health education will Affect a person's behavior in dental and oral hygiene. The purpose of this research is to get an overview of the oral hygiene status of dental students in Padjadjaran University (Students in Regular Class 2008) based on blood types as a risk factor for periodontal disease, **Methods:**This study was a descriptive study with survey technique. Samples were taken with a simple purposive sampling method of 76 respondents, **Results:**The results Showed that the blood type O shows the best OHI-S with distribution frequency is 94.29% and the worst is blood type B with the distribution frequency is 6.25%, **Conclusion:** blood type O shows the best OHI-S and blood type B with the worst oral hygiene status is assume in having the biggest risk factor for periodontal disease compare to other blood types,

Keywords: Oral Hygiene Index, Blood type, periodontal disease

INTRODUCTION

Efforts to improve the quality of life in humans is influenced by many factors. one of which is the health factors that include oral health. Oral health problems are part of the body that can not be separated from one another because the oral health affects.[1] body health status of oral hygiene is a condition that describes cleanliness that occurs in the oral cavity including the teeth that are hard tissue and support networks.[2]

Dental hygiene and mouth can be determined by using OHI-S (Simplified oral Hygiene Index) of Greene and Vermilion. OHI-S is the score or the value of dental and oral examination by summing the plaque index and the index kalkulus.[3] Plaque is a sticky coating that is attached to the tooth surface, composed of bacteria and food scraps. Tartar is the mineralized plaque deposits are hard and stick to gigi.[4] Plaque and tartar can cause problems in the oral cavity, such as caries, gingivitis and periodontitis. Oral health maintenance purpose is to prevent the formation of plaque and calculus.

According to Hendrik L. Blum, there are several factors that can affect a person's health status, among others: environmental factors, behavior, health care and hereditary. The behavior of a person who has a health background will affect both the health status including oral hygiene status.[5] blood group, which is the result of the blood grouping is based on presence or absence of

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antigenic substances on the surface of red blood cells (erythrocytes), including hereditary factors and are often used as a genetic marker that is linked with a wide range of disease.[6] All human populations have the same blood classification system, but have spread of blood groups varies and this variation depends on a wide range of races that are located in different regions.[7]

Results of research conducted at the Faculty of Dentistry, University of King Abdulazis Students with a sample size of 161 respondents showed that blood type B have a risk factor for periodontitis disease is higher than other blood type and blood type A is more resistant to hit periodontitis.[8] Kaslick et al.[9] the research also suggested that periodontitis suffered by someone good with blood type A and B.[10]

However, research Demir, et al. performed at Ataturk University Faculty of Dentistry Students with a sample size of 1351 respondents had a difference that shows that blood group O have a higher risk periodotitis and blood group A has the risk of gingivitis more higher.[7] addition, Gawrzewska study showed that blood type O also has a number periodontitis disease is higher than other blood groups and blood group A were more resistant exposed periodontitis.[9] the purpose of writing this article is to get an idea of oral hygiene status FKG Unpad Students Regular Force in 2008 with blood type A, B, AB and O. this research Data can also be a source of oral hygiene status FKG Unpad Students Regular Force in 2008 and became a comparison for future research.

METHODS

The study was conducted in February-March 2012 at the Hospital of the Faculty of Dentistry, Padjadjaran University, Bandung. Type of research is descriptive survey method. Sampling was done by simple purposive sampling. The study was conducted in the following manner: (1) Make a permit research and recommendation proposal of the ethics committee of health to the Director of the Hospital FKG Unpad, (2) Interview directly to dental students Unpad Regular Force in 2008 about their blood types to obtain a population of respondents (number 101), (3) Samples were taken based on predetermined criteria (do not use tools orthodonti fixed, 18-year-old, male and female, have a good knowledge in maintaining oral hygiene). The number of samples in this study as many as 76 respondents, consisting of male respondents amounted to 14 people and women amounted to 62 people. When classified according blood group and sex of respondents with blood type A are 2 men and 18 women, blood type B are 1 male and 15 female, blood type AB are 0 male and 5 female, blood type O are 11 men and 24 women. Prior to treatment, prior research subjects were given an explanation of the research to be conducted. Subjects were then given informed consent research as evidence of consent and willingness of the research subjects. The study of oral hygiene using OHI-S Greene and Vermilion by adding up the value of plaque and calculus. Examination of plaque using disclosing solution to see the value of dental plaque attached to the determinant. The tooth surface is examined facial surfaces of the teeth 16; 11; 26; 31 and the lingual surfaces of the teeth 36 and 46. Each tooth surface is divided into three parts, namely the gingival third, middle third and a third incisal or occlusal third.

The plaque index assessment criteria are as follows: a value of 0 for the criteria of plaque free. A value of 1 1/3 fatherly criteria cover the surface of the tooth plaque or less. Value 2 for plaque criteria covering more than 1/3 to 2/3 the tooth surface. 3 for plaque criteria covering more than 2/3 of the tooth surface. Meanwhile calculus index assessment criteria are as follows: score 0 for independent criterion calculus. A value of 1 if the tooth surface seen their supragingival calculus covering 1/3 or less than 1/3 of the tooth surface. A value of 2 if the tooth surface visible presence of supragingival calculus covering more than 1/3 to 2/3 the tooth surface or when around the neck of the tooth are subgingival calculus.

Criteria include the oral hygiene status of plaque and calculus by Greene and Vermillion is as follows: 0.0 to 0.6 is the criteria Good value, value from 0.7 to 1.8 in the Average and value from 1.9 to 3.0 is sorted. In addition, OHI-S criteria are as follows: 0.0 to 1.2 is Good, the value of 0.3 to 3.0 is the category of Medium, and the value of 3.1 to 6.0 is poorly written examination results in the examination form and the data obtained from the study are presented in the form of Figure 3.

RESULTS

Figure 3 shows the frequency distribution of research findings in the form of various levels of OHI-S is based on blood type. OHI-S on Students FKG with blood type A, the majority are students with OHI-S good criteria and have a frequency distribution of 80.00% (16 people). Students with OHI-S criteria were having a frequency distribution of 20.00% (4) and the criteria for bad OHI-S is not owned by FKG student with blood type A. OHI-S at FKG student with blood type B, the majority are students with criteria OHI-S is good and has a frequency distribution of 81.25% (13 people). Students with OHI-S criteria were having a frequency distribution of 12.50% (2) and the criteria and OHI-S poorly frequency distribution of 6.25% (1). OHI-S on Students FKG with blood type AB, the majority are students with criteria OHI-S both have a frequency distribution of 60.00% (3). Students with OHI-S criteria were having a frequency distribution of 40.00% (2) and the criteria for bad OHI-S is not owned by FKG student with blood type AB. OHI-S on Students FKG with blood type O, the majority is with OHI-S good criteria and have a frequency distribution of 94.29% (33 people). Students with OHI-S criteria were having a frequency distribution of 5.71% (2) and the criteria for bad OHI-S is not owned by FKG student with blood type O. OHI-S on Students FKG with blood type O, the majority is with OHI-S good criteria and have a frequency distribution of 94.29% (33 people). Students with OHI-S criteria were having a frequency distribution of 5.71% (2) and the criteria for bad OHI-S is not owned by FKG student with blood type O. OHI-S on Students FKG with blood type O, the majority is with OHI-S good criteria and have a frequency distribution of 94.29% (33 people). Students with OHI-S criteria were having a frequency distribution of 5.71% (2) and the criteria for bad OHI-S is not owned by FKG student with blood type O.

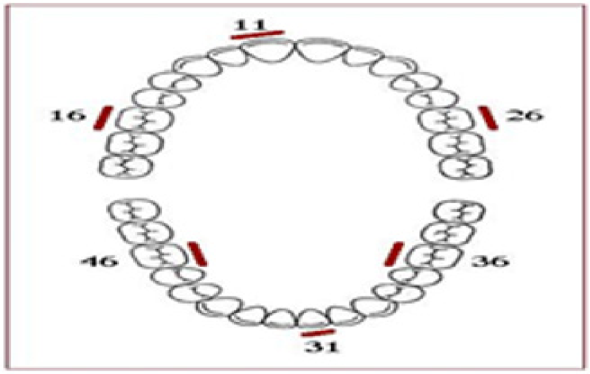

Figure 1. Teeth are examined on a surface examination of ohi-s (hiremath, 2007)

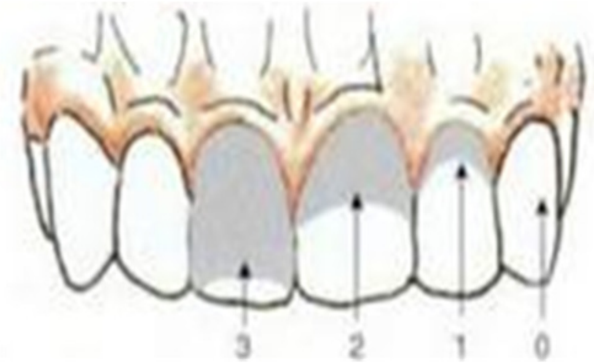

Figure 2. Plaque and calculus assessment method (hiremath, 2007)

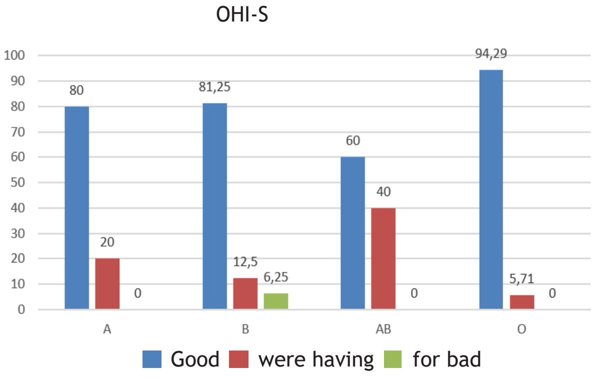

Figure 3. Oral hygiene index simplified students fkg by blood

DISCUSSION

The measurement results on Students FKG plaque index has a higher percentage than the index calculus. It can be caused due to plaque formation shorter time, while the calculus takes on average 12 days to experience the mineralization of the plaque into kalkulus.[11] It is also associated with one of the Blum theory which states that the level of education can affect a person's behavior. Students FKG knowledge to do a good brushing regularly affect their behavior so before reaching 12 days of plaque can be removed and calculus fails to form.

Dental students have oral hygiene status based on blood types vary. It can be seen from the frequency distribution of OHI-S. Distribution fekuensi OHI-S with the best category is owned by blood type O at 94.29%, but both blood gologan

A, B, AB and O have OHI-S criteria well above 50%. This is in accordance with one of the Blum theory which states that the level of education can affect a person's behavior in protecting and maintaining oral hygiene. Category average and poor in oral hygiene status is still owned by the Students of the Faculty of Dentistry shows that not only educational factors that influence behavior in maintaining oral hygiene status a person but can be influenced also by socio-economic factors that habit, social and cultural factors, as well as blood type. Besides, there are also behavioral factors environmental factors, such as geographical conditions in which one lives.[5]

These factors may affect the value allowable frequency distribution Students FKG OHI-S in the condition status and oral hygiene was poor. Blood type B in this study has a frequency distribution worst OHI-S (6.25%), so it is suspected that the blood group B have risk factors for periodontal disease is higher than other blood types. This is in accordance with the statement of some previous researchers.Ghamdi et al.in his research concluded that blood type B has a risk factor for periodontitis tinggi.[8] addition,Kaslick, et al. the research also suggested that periodontitis suffered by the respondent with blood type A and B.10 These results differ from the results of several studies previous.This is because the number of different samples and there is a difference pegukuran research. This study only measures the plaque index and calculus index, whereas previous studies also examine pocket depth, clinical attachment lose, distance cemento-enamel junction to the gingival edge, unsteadiness and loss of teeth.

This study was conducted on 76 respondents who had been in accordance with the sampling technique is simple purposive sampling, whereas previous studies had sample sizes are far more likeGhamdi et al as many as 161 respondents and Demir, et al. as much1351 respondents, thus enabling research results bervariasi.[6-9] This study has research results that are similar to some previous studies, although there are differences in the number of samples and examination of oral hygiene. This can be the basis for further research on larger population regarding blood type relationship to the risk of periodontal disease.

CONCLUSION

Oral hygiene status based on the blood dentistry students Regular Force in 2008 can be concluded that the best oral hygiene status is blood type O, while the worst oral hygiene status is blood type B to have periodontal disease risk factors were higher compared with other blood types.

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