040: **Analysis of the bacterial flora of infected shunts in dialysis patients and its relation to their oral flora**

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Objectives: Chronic kidney disease (CKD) is one of non-communicable diseases characteried by the gradual decline in renal function that can leave not only the deterioration of health but also economic burden for patients and their families. Almost advance to end stage of CKD patients have hemodialysis shunt as a treatment method to replace the lost kidney function. The pathology of infectious complications of that hemodialysis access is unknown clearly. Many epidemiological studies showed that oral health status has an intimated relationship with infected shunt sites, but we still lack bacterial evidence. The aims of this study were to identify of bacterial flora in shunt infection using Next Generation Sequencing of the bacterial 16S rRNA gene, then clarify the relationship between oral flora and bacterial flora of infected shunt. Methods: The infected shunts, pus from infection sites, saliva and dental plaque were collected from four dialysis patients and genomic DNA of bacteria was extracted from each sample. DNA libraries were prepared according to the manufacturer's recommended protocol and 16S Ribosomal RNA (16S rRNA) gene sequencing analysis was performed using MiSeq (Illumina). Normal PCR was performed to identify the bacterial species using species-specific PCR primer. Results: From the results of 16S rRNA analysis, the ratio of staphylococcus in saliva of 2 out of 4 patients was abnormally high and oral flora of saliva was similar to that of infected shunt in these two patients. And normal PCR analysis showed that the oral disease-related bacteria including Tannerella Forsythensis existed in the infected unused shunt. Conclusion: Since oral cavity specific bacteria were observed in the unused shunt, it is suggested that oral bacteria may be one of the causes of shunt infection in the dialysis patients.

041: **Significant and Learning Effects of Supplementary Lectures named "Seminar of Dental Biomaterials" to Support 6th-Year Students for Success in the 111th National Board Dental Examination**

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Objectives: Our division has given supplementary lectures named Seminar of dental biomaterials to the 6th-year students of School of Dentistry in Kyushu Dental University for success in national board dental examination in addition to regular lectures since 2014. In 2016 and later, we focus on this learning support and carried out total 8 lectures a year. For improving this lecture, its significance and learning effects were examined by several questionnaires to attending students on 2017. Methods: All lectures were informed 6th-year students by posting. Attendance was voluntary because all lectures were not regular but extra. Before each lecture, we handed out the exercise problem sheets for prompting them to do self-learning and notice their incomprehensible contents. Seven lectures out of eight were carried out by the form ±of answers and explanations for the exercise problems. The 7th lecture was carried out a trial examination. Each questionnaire was conducted onymously about several contents such as the preparation, learning comprehension level and satisfaction level and others. A comprehensive questionnaire was also conducted after all lectures.Results: In summary, the attendance rate was 67.2 ±8.6%, and the rate of answerers who previously solved the exercise problems was 65.3 ±15.8%. By self-analysis of each answerer, they could understand 68.9 ±2.6% of each contents and the degree of their satisfaction to the lectures was 80.2 ±3.1%. As differences from self-learning, 95.9 ±4.1% of answerers said "I could notice my incomprehensible contents ", "I knew easily mistakable points " and/or "I understood how to solve ".Conclusions: Almost all attending students answered that this supplementary lecture was effective for them. However, these effects were not for all 6th-year students. In order to give more effective lecture for more students, it was suggested that we had better to make a basic lecture before this supplementary lecture for reviewing important points in each contents.

042: **Is the position of dorsum of tongue related to oral frailty?**

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Objectives: In 2014, the Japan Geriatrics Society defined slight weakness in the oral and maxillofacial area as "oral frailty." We are investigating the possibility of oral frailty screening by using panoramic radiograph. In the IADR meeting in 2017, we had reported that there is the significant relationship between the position of hyoid bone on panoramic radiograph, and the vertical position of hyoid bone on lateral cephalograph. However, the relationship between the hyoid bone positions and the distance from dorsum of tongue to hard palate did not clear. In this issue, we searched the relationship of them.Methods: The study was based on 348 patients referred for a panoramic radiograph and lateral cephalograph. Two observers measured the maximum distance from the dorsum of tongue to the hard palate on the panoramic radiograph. The gold standard for measurement of hyoid bone position is the lateral cephalograph. We defined 3 landmarks on lateral cephalograph - Me: Menton, C3: most inferior and anterior point on the corpus of the third cervical vertebra, H: anterior point of the hyoid bone, H': shortest distance from H to C3-Me plane. The distance of H'-H as vertical position of hyoid bone was measured. The regression analysis was used.Results: There is no relationship between H'-H and the distance from the dorsum of tongue to the hard palate.Conclusions: The distance from the dorsum of tongue to the hard palate on panoramic radiograph, do not suggest the hyoid bone position. (KAKENHI:16K11523)