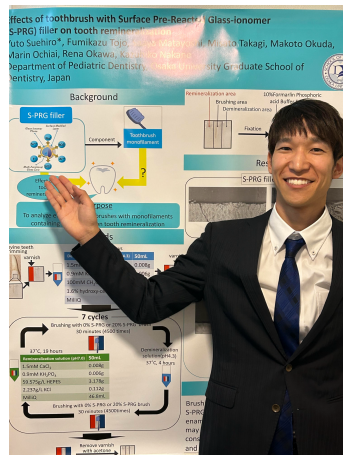
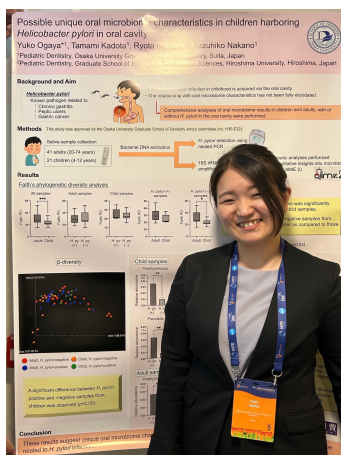


第 29 回 国際小児歯科学会 (IAPD)

令和 5 年 6 月 14 日～6 月 17 日にオランダのマーストリヒトで開催された国際小児歯科学会 (IAPD) において、医局員 5 名が参加し、発表いたしました。

演題

1. Y. Ogaya, T. Kadota, R. Nomura, K. Nakano Possible unique oral microbiome characteristics in children harboring *Helicobacter pylori* in oral cavity
2. Y. Suehiro, F. Tojo, S. Matayoshi, M. Takagi, M. Okuda, M. Ochiai, R. Okawa, K. Nakano Effects of toothbrush with Surface Pre-Reacted Glass-ionomer (S-PRG) filler on tooth remineralization
3. M. Kadono, M. Otugu, A. Shiota, I. Mohri, K. Kagitani-Shimono, M. Tachibana, M. Taniike, T. Kato, K. Nakano Associations of oral function with sleep disorders and developmental traits in healthy children
4. M. Takagi, S. Matayoshi, R. Okawa, K. Nakano Clinical characteristics and dental findings of patients with X-linked hypophosphatemia rickets
5. M. Ochiai, R. Okawa, T. Kadota, H.Kurosaka, S. Naka, T. Daikoku, A. Watanabe, M. Matsumoto-Nakano, T. Yamashiro, K. Nakano Construction and analysis of hypophosphatasia mouse models with knock-in *ALPL* gene mutation



Clinical characteristics and dental findings of patients with X-linked hypophosphatemia (XLH)

Hisato Takagi, Saaya Matsuyoshi, Kazuhiko Nakano
Department of Pediatric Dentistry, Osaka University Graduate School of Dentistry, Japan

Background
X-Linked Hypophosphatemia (XLH) rickets: rare skeletal disease characterized by impaired bone mineralization

Systemic symptoms
• ↑ P₁ levels
• Short stature
• Bone pain

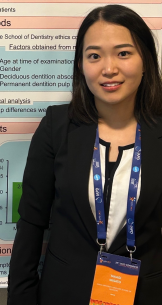
Dental manifestation
• Dental caries
• Discolored dentition, abscess
• Permanent dentition, pulp infection

Purpose
Analyze clinical characteristics and dental findings related to XLH patients

Methods
The study protocol was approved by the Osaka University Graduate School of Dentistry ethics committee. Participants in the study:
• Age at time of examination
• Gender
• Discolored dentition observed
• Permanent dentition pulp
Statistical analysis: Intergroup differences were compared.

Results
Abcess history
• All boys had history of abscesses
• Only one girl had history of abscesses
There was a significantly greater rate of abscess development in boys.

Conclusion
Among 31 XLH patients, males were affected by severe dental symptoms at ages in finding consistent with the severity of medical symptoms. History of abscesses was more frequent in males.



Construction and analysis of hypophosphatase mouse models with knock-in ALP

Shinji Nakai, Shuhei Nakai, Takashi Yamamoto, and Kazuhiko Nakano
Department of Pediatric Dentistry, Osaka University Graduate School of Dentistry, Japan

Background
Hypophosphatemia (HPP) is a skeletal disease caused by impaired bone mineralization. ALP is a key enzyme in bone formation. We constructed mouse models with a knock-in ALP mutation to analyze the effects of ALP on bone development.

Methods
Mouse models with a knock-in ALP mutation were constructed. The effects of ALP on bone development were analyzed using histological and molecular biology methods.

Results
The results of the study are summarized in the following tables:

Table 1: Results of genotyping	Table 2: Results of weight																
<table border="1"> <tr><th>Genotype</th><th>Number of mice</th></tr> <tr><td>+/+</td><td>10</td></tr> <tr><td>+/-</td><td>10</td></tr> <tr><td>-/-</td><td>10</td></tr> </table>	Genotype	Number of mice	+/+	10	+/-	10	-/-	10	<table border="1"> <tr><th>Genotype</th><th>Weight (g)</th></tr> <tr><td>+/+</td><td>10.0</td></tr> <tr><td>+/-</td><td>10.0</td></tr> <tr><td>-/-</td><td>10.0</td></tr> </table>	Genotype	Weight (g)	+/+	10.0	+/-	10.0	-/-	10.0
Genotype	Number of mice																
+/+	10																
+/-	10																
-/-	10																
Genotype	Weight (g)																
+/+	10.0																
+/-	10.0																
-/-	10.0																

Conclusion
The results of the study indicate that the knock-in ALP mutation has no significant effect on bone development in mice.

