



## CONFIRMATION OF ORAL PRESENTATION

This is to certify that the following oral presentation was given by

**Gaetano Isola**

at the

**CED-IADR/NOF Oral Health Research Congress**

taking place in Vienna, Austria, September 21-13, 2017

**Presentation Titel:**

*“Evaluation of Changes in Oral-Health-Related Quality of Life Following Functional Therapy in Patients with Juvenile Idiopathic Arthritis”*

(Final ID: 216)

**Oral Session:**

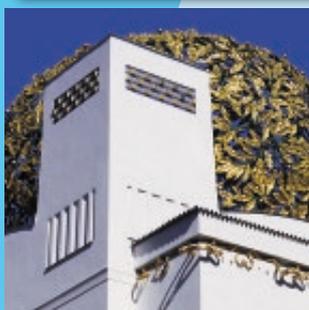
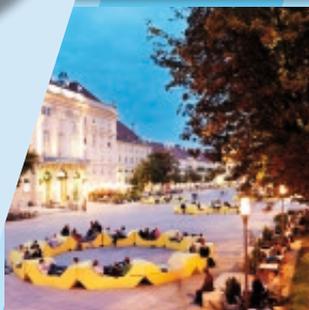
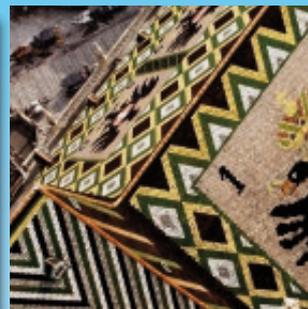
*Oral Health Issues in Connection with General Health*

**CED** IADR

Nordisk Odontologisk Förening

**NOF**

Scandinavian Division  
IADR



**PROGRAMME**

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**CED-IADR/NOF**  
**Oral Health Research Congress**  
September 20-23, 2017  
Messe Wien Congress Centre  
Vienna/Austria

Promoting High-Quality Oral Health Research in Europe  
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# Scientific Programme

## THURSDAY, September 21

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Seq#: 26      Thursday, 21 September 2017, 16:00 hr – 18:00 hr  
Oral Session, Lehar 3

### Oral Health Issues in Connection with General Health

Chairperson: J. Olak and M. Saag

- S0211** 16:00 hr **Oral Health in Toddlers Attending a Postnatal Home Visiting Programme.**  
I. BRÄNNEMO\*, G. TSILINGARIDIS, G. DAHLLÖF  
(Department of Dental Medicine, Division of Pediatric Dentistry, Karolinska Institutet, Huddinge, Sweden)
- S0212** 16:15 hr **Oral Health Among Adolescents in Maasai Population Areas in Tanzania.**  
L. SIMANGWA\*, A. ÅSTRØM, A. JOHANSSON, A.-K. JOHANSSON  
(Clinical Dentistry, University of Bergen, Bergen, Norway)
- 0213** 16:30 hr **Relationship Between Gingival Phenotype and Delayed Eruption in Children.**  
I. BAG\*, B. GULER  
(Pediatric Dentistry, Dumlupinar University, Kutahya, Turkey)
- 0214** 16:45 hr **Progression of Dental Caries in Swedish Children After General Anesthesia.**  
G. TSILINGARIDIS\*, J. PERSSON, L. JANSSON, M. GRINDEFJORD  
(Department of Dental Medicine, Division of Pediatric Dentistry, Karolinska Institutet, Huddinge, Sweden)
- S0215** 17:00 hr **Oral Health and Behaviours an Association with Suspected Child Maltreatment.**  
T. KVIST\*, E.-M. ANNERBÄCK, G. DAHLLÖF  
(Dental Medicine, Karolinska Institutet, Huddinge, Sweden)
- S0216** 17:15 hr **Evaluation of Changes in Oral-Health-Related Quality of Life Following Functional Therapy in Patients with Juvenile Idiopathic Arthritis.**  
G. ISOLA\*, L. RAMAGLIA, D. DALESSANDRI, G. MATARESE  
(Department of Biomedical, Rheumatological, Odontostomatological, Sciences and Morphological and Functional Images, University of Messina, Messina, Italy)
- 0217** 17:30 hr **Levels of Candida spp. Among HIV+ Paediatric Patients Under Antiretroviral (ARV) Therapy.**  
B. WONDIMU\*  
(Department of Pediatric Dentistry, Karolinska Institutet, Huddinge, Sweden)
- S0218** 17:45 hr **Discussion**





Holmgren, C:	0134	Ishizuka, S:	0293
Homolka, P:	0387	Isidor, F:	0549
Honkala, E:	0138, 0237	Isik, G:	0252
Honkala, S:	0138	Isik, A:	0254
Hoptroff, M:	0221	Isik, I:	0546
Horvati, K:	0534	Isler, S C.:	0464
Hosseinpour, S:	0008	Isola, G:	0077, 0216
Hotwani, K:	0232	Issever, H:	0403
Hovden, E S.:	0166	Ivanišević Malčić, A:	0134
Huck, O:	0076.3	Ivkovski, L A.:	0010
Huettig, F:	0313	Iwasaki, Y:	0322, 0371, 0388
Huh, Y:	0298	Izgi, S:	0592
Huh, Y:	0536		
Huhtela, O S.:	0321	<b>J</b>	
Huiberts, D:	0130	Jacinto, R D.:	0382
Huneke, A A.:	0473	Jackson, P:	0422
Husejnagic, S:	0533	Jacomine, L:	0307
Huth, S:	0283, 0311	Jagomagi, T:	0072
Hyde, T:	0302	Jagomägi, T:	0071
Høyvik, A:	0231	Jalali, R:	0021
		Jamsek, J:	0280
<b>I</b>		Jang, H:	0081
Ibrahium, A M.:	0452.1	Janjić, K:	0060, 0061, 0188
Idris, S:	0380	Jansson, L:	0214
Iizuka, J:	0492	Janukit, C:	0364
Ikeda, K:	0132	Jeanneau, C:	0076.4, 0189, 0190, 0191, 0192, 0417, 0418
Ileri Keceli, T:	0021.1	Jensdottir, T:	0495
Ilie, N:	0276, 0396	Jensen, J:	0164
Imataki, R:	0090	Jessel, N:	0076.3
Imazato, S:	0222	Jevnikar, P:	0280, 0301, 0400
Inan, O:	0076.9	Jo, E:	0298
Ince Kuka, G:	0424, 0425, 0565, 0583	Jo, E:	0536
Inokoshi, M:	0245	João-Souza, S H.:	0064, 0497
Inoue, G:	0518	Johannessen, A:	0017, 0156
Ionescu, A C.:	0453	Johansson, A:	0212
Irusta, S:	0076.3	Johansson, A:	0212
Ishizawa, M:	0506, 0507		



**Results** Only 4.8% (n = 3) of the patients underwent new treatment under general anesthesia during the five-year follow-up. The incidence of dental caries in the permanent dentition increased significantly ( $p = 0.006$ ) over the five-year period and 52% of the patients (n = 32) had new manifest dental caries. No significant difference could be seen regarding the number of prevention treatments ( $p = 0.525$ ) and behavior management ( $p = 0.078$ ) between baseline and five years later. The number of canceled and missed appointments increased significantly ( $p < 0.001$ ) during the five-year period.

**Conclusions** Children and adolescents with severe dental caries who received dental treatment under general anesthesia have during a five-year period a significant caries progression. Furthermore, preventive and behavior management treatment is not given to the extent needed considered that this is high risk patients for dental caries.

0215

### **Oral Health and Behaviors in Association with Suspected Child Maltreatment**

T. Kvist<sup>1,4</sup>, E. Annerbäck<sup>3,4</sup>, G. Dahllöf<sup>2</sup>

<sup>1</sup>Dental medicine, Karolinska Institutet, Huddinge, Sweden, <sup>2</sup>Department of Dental Medicine, Karolinska Institutet, Huddinge, Sweden, <sup>3</sup>Department of Clinical and Experimental Medicine, Linköping University, Child and Adolescent Psychiatry, Linköping, Sweden, <sup>4</sup>Uppsala University, Centre for Clinical Research Sörmland, Eskilstuna, Sweden

**Objectives** To assess oral health and oral health behaviors in relation to suspected child abuse and neglect (CAN) among children investigated by the Swedish Social Services.

**Methods** This study consisted of dental records and specific data from the Social Services and included children who had been reported from any source (including dental caregivers) for suspected CAN, and for whom an investigation had been initiated. The sample comprised 86 children and 172 matched controls.

**Results** The children in the study group were found to have a higher prevalence of dental disease in both primary ( $p = 0.003$ ) and permanent dentition ( $p = 0.003$ ). Furthermore, there were significant higher levels of non-attendance without a reasonable explanation in both general dentistry ( $p = 0.036$ ) and in specialist pediatric dentistry ( $p < 0.001$ ), experience of dental treatment ( $p < 0.001$ ) as well as a parental failure ( $p < 0.001$ ) to promote good oral health. Four factors were found to accumulate the probability to be investigated because of suspected CAN; prevalence of dental caries in primary teeth, fillings in permanent teeth, dental health service avoidance and to have been referred to specialist pediatric dentistry clinics. When entered in a cumulative probability model, these four factors together increased the probability of being investigated by the Social Services because of suspected CAN. When none of the factors were present, the probability to be investigated was 0.01, when all factors were present the probability increased to 0.92.

**Conclusions** This study shows that oral health status and attendance behaviors especially in the specialist pediatric dental clinics are important factors when assessing children's wellbeing and the risk for CAN. Poor oral health is an important indicator of social dysfunction that must be recognized by dental health services as well as by the Social Services.

0216

### **Evaluation of Changes in Oral-Health-Related Quality of Life Following Functional Therapy in Patients with Juvenile Idiopathic Arthritis**

G. Isola<sup>1</sup>, L. Ramaglia<sup>2</sup>, D. Dalessandri<sup>3</sup>, G. Matarese<sup>1</sup>

<sup>1</sup>Department of Biomedical, Rheumatological, Odontostomatological, Sciences and Morphological and Functional Images, University of Messina, Messina, Italy, <sup>2</sup>Department of Neurosciences, Reproductive and Odontostomatological Sciences, School of Medicine, University of Naples "Federico II", Naples, Italy, <sup>3</sup>Department of Orthodontics, School of Dentistry, University of Brescia, Brescia, Italy

**Objectives** Temporomandibular (TMJ) is frequently involved during Juvenile idiopathic arthritis (JIA) which can cause cartilage and bone damage as well as global disability. Given the important role of TMJ involvement, there is an increasing interest in therapies that could improve the quality of life in JIA patients. The objectives of the present study were to evaluate the clinical effectiveness of functional therapy used to reduce TMJ disorder in patients with JIA and by improving the Oral-health-related quality of life (OHRQoL).

**Methods** Forty-four patients with JIA (mean age,  $12.9 \pm 2.4$  years) and with TMJ involvements was enrolled in the study. Each patient, following the collection of clinical parameters, was treated for 24 months with a functional therapy by the Andresen activator. TMJ sign and signs were recorded and OHRQoL was measured using the Oral Health Impact Profile (OHIP-14) questionnaire. The differences at baseline (T0) and after therapy (T1, 24 months) of the clinical TMJ signs and symptoms parameters were evaluated by the chi-squared test and the Friedman two-way

analysis of variance (ANOVA) was used to compare the relative changes in the OHRQoL scores.

**Results** All patients successfully completed the study. The use of a functional appliance determined a statistically significant difference in the different OHIP-14 scores parameters ( $P < 0.001$ ) and there were significant reductions in the domain of the OHIP-14 scores at T1, T2, and T3 compared with baseline ( $P < 0.001$ ). Significant changes were observed in the maximal mouth opening, pain during jaw movement, TMJ sounds and crepitations ( $p < 0.001$ ) that were significantly reduced at T1 ( $p < 0.05$ ).

**Conclusions** The results of this study suggest that functional therapy was safe and well tolerated by the patients and significantly improve OHRQoL and most probably reduces the level of TMJ inflammation and the TMJ arthritis-related orofacial symptoms.

0217

### **Levels of *Candida* spp. Among HIV<sup>+</sup> Paediatric Patients Under Antiretroviral (ARV) Therapy**

B. Wondimu

Department of Pediatric Dentistry, Karolinska Institutet, Huddinge, Sweden

**Objectives** The objective of this study was to evaluate the prevalence of *Candida* spp., among HIV<sup>+</sup> paediatric patients under antiretroviral (ARV) therapy and correlate these results with CD4 cell counts and viral load.

**Methods** 45 vertically infected HIV<sup>+</sup> children under ARV therapy for at least 1 year, were included in the study. The control group was constituted by 71 healthy children, matched to the test group in relation to age and gender. Following clinical examination, data concerning caries experience, oral lesions, and stimulated saliva was collected and the levels of *S. Mutans*, *Lactobacillus* and *Candida* spp. in saliva was determined. CD4 cell counts and viral load levels that corresponds to the date of clinical examination was obtained from the children's medical journal.

Obtained values were analyzed using the SPSS 16.0, Chicago, IL.

**Results** Salivary flow rate, caries experience and levels of *S. Mutans*, and *Lactobacillus* in the HIV<sup>+</sup> group were similar to the controls. The number of children with positive *Candida* spp. growth in saliva was significantly ( $P < 0.05$ ) higher among the HIV<sup>+</sup> group (63%) compared to the healthy controls (34%). *Candida* spp. counts were also statistically higher among the HIV<sup>+</sup> group. CD4 cell counts and viral load levels were not correlated to the level of *Candida* spp. in saliva. The prevalence of untreated caries (DS) was, however, correlated to the level of *Candida* spp. in both groups.

**Conclusions** HIV<sup>+</sup> children exhibited a significantly higher levels of salivary *Candida* spp. despite good oral health status and long term ARV therapy. The clinical significance and implications of this finding needs further investigation.

0219

### **Mouth as a Microbial Habitat: Symbiosis as a Goal**

P. Marsh

Oral Biology, University of Leeds, Leeds, United Kingdom

The mouth is similar to other environmentally-exposed surfaces of the body in that it has a characteristic and diverse resident microbiota [the oral microbiome]. This microbiota persists in the mouth as structurally- and functionally-organised biofilms. The oral microbiome and the host have a symbiotic relationship in that the host provides a warm and nutritious habitat for microbial colonisation and growth, and receives important benefits in return. These benefits include pathogen exclusion, development of the host defences and immune modulation, together with some regulation of the cardiovascular system. This symbiotic relationship is dynamic and vulnerable to disruption. Changes to the oral environment or to our lifestyle (e.g. sugar-rich diets, reduced saliva flow, smoking, immune suppression, inflammation) can drive deleterious shifts in the natural balance of our oral microbiota (dysbiosis). Improvements to our knowledge of the composition and function of our natural oral microbiome, for example, by the application of contemporary metagenomic, transcriptomic and metabolomic techniques, should enable new approaches to be identified that can be developed to actively promote and maintain a healthy oral microbiome. These approaches could include (a) boosting the growth and numbers of beneficial oral bacteria by the use of pre- or probiotics, (b) stimulating saliva flow and/or components of the innate host defences, (c) modifying bacterial metabolism or growth by the repeated delivery of inhibitors in oral care products that achieve an accumulative impact of modest effects over prolonged periods, and (d) identifying and nullifying the drivers of dysbiosis. Effective oral care may require a paradigm shift in the future towards 'controlling' or actively 'managing' the oral microbiota and reducing the drivers of dysbiosis in order to promote symbiosis and preserve the benefits of a natural oral microbiome