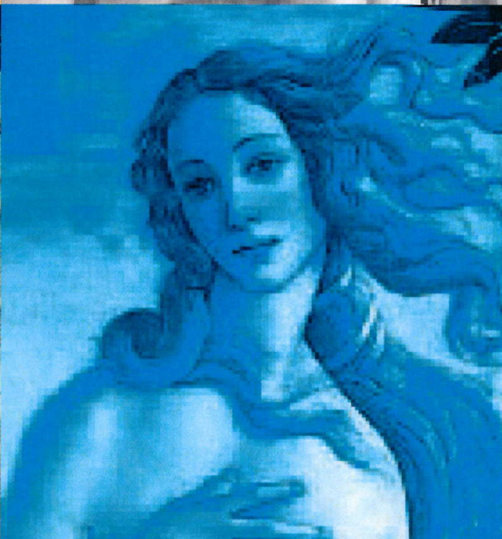
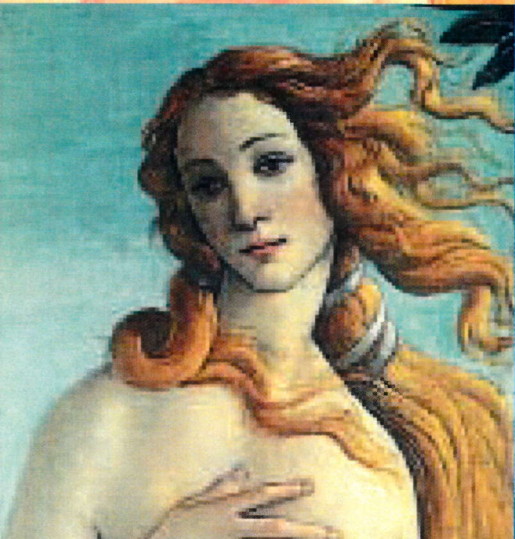


**24**° Congresso Nazionale  
Collegio dei Docenti Universitari  
di discipline Odontostomatologiche



# LA SFIDA ESTETICA IN ODONTOIATRIA

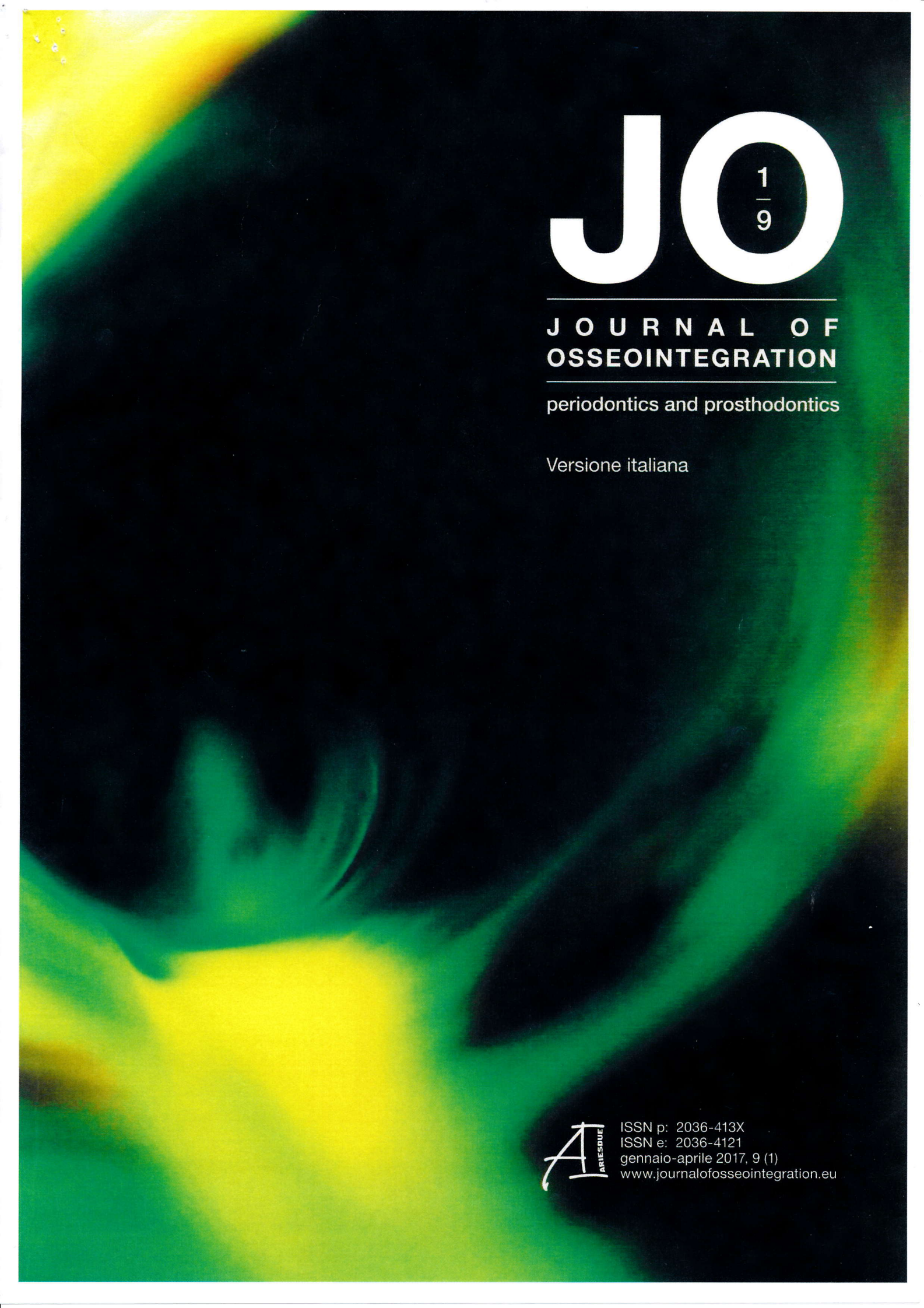


6-8 aprile 2017  
**Milano**

Centro Congressi San Raffaele







# JO

1  
—  
9

---

JOURNAL OF  
OSSEOINTEGRATION

---

periodontics and prosthodontics

Versione italiana



ISSN p: 2036-413X  
ISSN e: 2036-4121  
gennaio-aprile 2017, 9 (1)  
[www.journalofosseointegration.eu](http://www.journalofosseointegration.eu)



Sapienza University of Rome

**Aim:** This study aims at establishing if a new interdental brush, made out of soft rubber and having ergonomic grip, improves cleaning and tissues health conditions in the distal surface of mucous partially included wisdom teeth.

**Methods:** Thirty-two mucous partially included wisdom teeth were selected for this study and divided in two groups, the test group made of 15 teeth, and the control one made of 17 teeth. Full Mouth Plaque Score (FMPS), Full Mouth Bleeding Score (FMBS), Plaque and oedema presence or absence on the distal surface of the wisdom teeth were assessed before that professional oral hygiene was performed. A periodontal probe was positioned on the distal surface of the examined tooth, and moved from the buccal side to the lingual one. The presence/absence of biofilm accumulation and the presence/absence of oedema of the retromolar mucosa was registered on the clinical form. Professional oral hygiene was performed, using airpolishing with glycine powder and ultrasonic supragingival scaling (Mectron Combi Touch). A thinner ultrasonic tip (Mectron S2) and a 120° angled cleaning tip for airpolishing were used on the distal surface of the wisdom teeth. Oral hygiene instructions were given according to the Tailored Brushing Method. All patients were asked to brush twice per day for two minutes at least with a medium multi angled bristles toothbrush (Gum Technique pro compact medium). The toothbrush was chosen for the multi angled bristles, to be more effective also in the hard to reach areas such as the distal surface of the wisdom teeth. An operator supervised each patient while brushing alone to be sure of their manual skills. Patients of the test group were also asked to learn how to use a new interdental brush made out of rubber (Gum Soft Picks Advance) and were supervised by the operator while using it. The soft picks advance was chosen for its ergonomic curved grip that allows to reach better posterior teeth. Patients of test group were asked to complete the oral hygiene procedures cleaning the distal surface of the wisdom teeth with the Soft picks advance.

After 30 days all patients were evaluated and clinical indexes were collected again. T student test was used to compare initial and final values.

**Results:** FMPS and FMBS statistically improved in both groups ( $p < 0,05$ ). This can be related to the short follow up period, to the professional oral hygiene performed and to the right choice of toothbrush. Plaque on the distal surface was detected only on two teeth of test group (13,3%), and the result was statistically significant compared to the initial values e compared to the final values

of the control group. Oedema was absent in the 100% of test group examined sites. Control group had oedema on 5 of the distal surfaces examined.

**Conclusions:** A customized oral hygiene maintenance program is essential to keep values of clinical indexes low. Choosing the right instruments for each patient is crucial in managing oral health maintenance, also in the hard to reach areas such as wisdom teeth.

### Salivary pH in patients with juvenile idiopathic arthritis under drug treatment with methotrexate and etanercept: single or combined administration

Chiara Occhipinti, Umberto Garagiola, Marysol Pinto, Rossano Soldo, Bruno Colangelo, Laura Schiavone, Paolo Cressoni

University of Milano

Degree in Dentistry- President Prof. G. Farronato

IRCCS Ca' Granda Foundation- Ospedale Maggiore Policlinico

UOC Odontostomatological and Maxillofacial Surgery- Director

Prof. A.B. Gianni

**Aim:** The aim of the study was to compare the influence of the therapy with Methotrexate and Etanercept, single or combined administration, on salivary pH in patients with Juvenile Idiopathic Arthritis (JIA).

**Methods:** 73 patients, 57 females and 16 males aged between 7 and 25 years, were included in the study. 22 of them were treated with Methotrexate (A) and 9 with Etanercept (B), while 8 used a combined administration (C) and 34 were untreated (D). The salivary fluid of each patient was collected for 5 min and its H<sup>+</sup> concentration was immediately tested with the use of a litmus paper.

No foods or drinks were taken by the patients for at least 2 hours before the test.

**Results:** All the groups showed a mean salivary pH of 6,9, with the only exception of group B (patients treated with Etanercept) which demonstrated a slight mean decrease to pH 6,5.

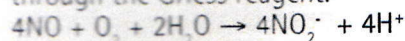
**Conclusions:** In this study the drug therapy administered to JIA patients, compared with untreated patients, does not appear to adversely affect the salivary pH. However, a slight decrease of pH from 6,9 to 6,5, was registered in subjects treated with Etanercept.

This result suggests to do more researches in order to understand if the pH decrease may be related to the drugs or caused by oral inflammatory conditions (gum, periodontal, oropharyngeal or gastro-intestinal inflammation)

Indeed, the concentration of nitric oxide, caused



by oxidative stress, can be researched in order to approximatively quantify the rate of inflammation through the Griess reagent.



The upper shown red-ox reaction suggests to consider the presence of H<sup>+</sup> in salivary fluids as a possible cause of pH decrease. At a later time, testing the salivary buffer capacity may be advisable, in order to better understand the problem, propose useful suggestions for the patients' daily life and prevent of oral and dental diseases. At last, more attention should be paid to nutrition and home oral hygiene (HOH) of these patients for the prevention of oral and dental diseases.

### Protective effects of a zinc-hydroxyapatite toothpaste on enamel erosion: microhardness and sem study

**Davide Rattalino, Matteo Viola, Matteo Miegge, Maria Mirando, Marco Cavallo**

Department of Clinical, Surgical, Diagnostic and Pediatric Sciences  
- Section of Dentistry, University of Pavia

**Aim:** The aim of the present in vitro study was to evaluate the protective effects of a zinc-hydroxyapatite toothpaste compared with fluoride and no fluoride toothpaste against an erosive challenge produced by a soft drink (Coca-Cola) using Scanning Electron Microscopy (SEM) to evaluate morphological changes of enamel and a Durometer by which enamel hardness was monitored using surface micro-hardness measurements to investigate the Vickers microhardness (VK).

**Methods:** The following four toothpastes were tested: two toothpastes with Zn-HAP, one toothpaste with fluoride and one toothpaste without fluoride. An additional control group was used in which enamel specimens were not treated with toothpaste. Repeated erosive challenges were provided by immersing bovine enamel specimens (10 per group) in a soft drink for 2 min (6mL, room temperature) at 0, 8, 24 and 32 h. After each erosive challenge, the toothpastes were applied neat onto the surface of specimens for 3 min without brushing and removed with distilled water. Between treatments the specimens were kept in artificial saliva. Enamel hardness, after the erosive challenge and toothpaste treatment was monitored using surface micro-hardness measurements. The surface of each specimen was imaged by SEM. A visual rating system was used to evaluate the condition of the enamel surface; results were analyzed by non-parametric statistical methods.

**Results:** As expected, repeated erosive challenge by

a soft drink for total of 8 min significantly reduced enamel surface hardness (ANOVA,  $p < 0.05$ ). No re-hardening of the surface softened enamel was observed in the group treated with fluoride-free toothpaste. Surface hardness of the softened enamel increased when the specimens were treated with the fluoride toothpaste and the two toothpastes with Zn-HAP ( $p < 0.05$ ). In the SEM study, significant differences were found between the samples untreated and those immersed in Coca-Cola. The highest grade of damage was found in group with erosive challenge (Coca Cola) without toothpaste treatment, while the lowest grade was recorded in the samples treated with Zn-HAP toothpaste.

**Conclusions:** This study has confirmed that Zn-HAP toothpaste without fluoride is able to counteract the erosive effect of an acidic soft drink on dental enamel and in fact lead to remineralization of surface softened enamel as shown by a statistically significant increase in enamel hardness. Toothpaste with Zn-HAP resulted in significant enamel remineralisation of erosively challenged enamel, indicating that these toothpastes could provide enamel health benefits relevant to enamel erosion.

### Comparison of two procedures on secondary prevention of dental caries

**Rinaldo F\*, Mazur M\*, Corridore D\*, Pasqualotto D\*, Capocci M\*, Mergè F\*, Vichi M\*\*, Maruotti A\*\*\*, Nardi GM\*, Guerra F\*, Ottolenghi L\***

\*Department of Oral and Maxillo-facial Sciences, Oral Diagnosis Unit, "Sapienza" University of Rome, Italy.

\*\*Department of Statistical Sciences, "Sapienza" University of Rome, Italy.

\*\*\*Centre for Innovation and Leadership in Health Sciences, University of Southampton, Southampton, UK

**Aim:** Dental caries is the most common oral cavity disease and one of the major health problems in industrialized countries. Caries detection, at early stages of enamel demineralization, provides a better evaluation of disease and improves the success of primary and secondary preventive strategies, thus reducing as possible the tooth tissues injuries. Actually, detection and diagnosis of caries lesions relies on traditional tactile/visual inspection, radiography or new technological diagnostic tool based on light transmission, light fluorescence and other systems such as ultrasound and near infrared illumination. Oral radiographic examinations and traditional visual inspection methods, which are the most widely used in clinical practice, show low sensitivity and specificity. Their limit is the subjective