



5th



Global Network Initiative for BioDental Education and Research

Hiroshima University Faculty of Dentistry

5th Hiroshima Conference on Education and Science in Dentistry



Proceedings of 5th Hiroshima Conference on Education and Science in Dentistry
October 12-13, 2013, in Hiroshima, Japan

Hiroshima University Faculty of Dentistry

Organizing Committee

Chair

Motoyuki Sugai, Hiroshima, Japan

Takashi Takata, Hiroshima, Japan

Hiroki Nikawa, Hiroshima, Japan

Hidemi Kurihara, Hiroshima, Japan

Takashi Kanematsu, Hiroshima, Japan

Koichi Kato, Hiroshima, Japan

Masaru Sugiyama, Hiroshima, Japan

Yuji Yoshiko, Hiroshima, Japan

Katsuyuki Kozai, Hiroshima, Japan

Conference Secretariat:

Hiroshima University Faculty of Dentistry

1-2-3 Kasumi, Minami-ku, Hiroshima 734-8553, Japan

E-mail: bimes-buchosien@office.hiroshima-u.ac.jp

All rights reserved. No part of this material may be
reproduced in any form or by any means without
permission in writing from the organizing committee.

Printed in Japan

Poster Session

A-1~A-10: Dental Education

B-1~B-32: Frontiers of Biological Science in Dentistry

C-1~C-10: Latest Trends in BioDental Engineering

D-1~D-23: Oral Health and Clinical Treatments

Airlangga University, Indonesia

01-1 [B-1] 113

Antioxidant effect of Nigella sativa extract in various concentration
with DPPH free radical scavenging assay

S. Kurnia, R. Safitri and E.M. Setiawatie

01-2 [B-2] 114

The role of TGF- β 1 in alveolar bone resorption with Apical Periodontitis

D.A. Wahyuningrum

01-3 [D-1] 155

Nigella sativa oral rinse as an anti oxidant effect reduced bleeding on probing
and pocket depth

E.M. Setiawatie

01-4 [D-2] 156

Changes in the antegonial angle and depth in the dentate Javanese population

E.R. Astuti

01-5 [B-3] 115

The antifungal effect of *Stichopus hermanii* extract to *Candida albicans* in vitro

K. Parisihni, S. Revianti and D. Pringgenies

01-6 [D-3] 157

Relationship between dental caries and salivary neutrophil level with nutrition
in children

R. Indrawati, M.D. Ariani, A. Rizqiawan and K. Suardita

01-7 [B-4] 116

The role of hypoxia to apoptosis on bone marrow mesenchymal stem cells (BMSCs)
culture for salivary gland defect therapy due to ionized radiation

S.W.M. Mulyani

01-8 [B-5] 117

Induction HEMA upregulated expression of NLRP3 in rat dental pulp tissue

W. Saraswati

Chulalongkorn University, Thailand

02-1 [B-6] 118

Interleukin 12 increased RANKL/OPG expression ratio in human PDL cells

B.I.N. Ayuthaya and P. Pavasant

D-1
01-3

Nigella sativa oral rinse as an anti oxidant effect reduced bleeding on probing and pocket depth

E.M. Setiawatie

Department of Periodontics, Faculty of Dentistry, Airlangga University, Surabaya, Indonesia

BACKGROUND : Nigella sativa extract have been shown to suppress the growth of supragingival and subgingival bacteria. Nigella sativa extract were reported as an anti inflammation. The beneficial effects of nigella sativa extract were shown to be related to a reduction of the inhibition of inducible nitric oxide synthase and interleukin (IL)-1 β expression. The rationale of the study is based on our previous studies demonstrating the beneficial antioxidant effect of nigella sativa extract 3 % in vitro.

PURPOSE : The aim of the present study is to assess the clinical efficacy of nigella sativa oral rinse 3 % in managing of symptoms associated with progressivity of chronic periodontitis as a bleeding on probing and pocket depth.

MATERIALS AND METHODS : Patients with chronic periodontitis will randomly receive nigella sativa extract oral rinses. Thirty adult chronic periodontitis patient divided into two groups. group 1: comprised fifteen chronic periodontitis involved sites managed by scaling root planing

alone. And group II: comprised fifteen chronic periodontitis involved sites treated by the same technique in adjunct with the application of antioxidant mouth rinse nigella sativa extract 3 %. The patients will rinse 5 ml of the mouthwash, 2 times daily for 14 days. Clinical examination include probing depth (PD) and bleeding on probing (BOP).

RESULTS : These findings suggest that nigella sativa oral rinse 3% may actually decrease bleeding on probing dan pocket depth significantly ($p<0,05$).

CONCLUSION : We report that nigella sativa oral rinse provides inhibitor effect against bleeding on probing and pocket depth. Nigella sativa oral rinse 3% as an antioxidant effect potential as adjunct therapeutic agent after scaling root planing to prevent progressivity of chronic periodontitis.

Key words : Nigella sativa oral rinse, bleeding on probing, pocket depth



August 28, 2013

**5th Hiroshima Conference on Education and Science in Dentistry
Poster Abstract Acceptance Letter**

Dr. Ernie Maduratna Setiawati
Faculty of Dentistry
Airlangga University
Indonesia

Dear Dr. Ernie Maduratna Setiawati;

The organizing committee of the Hiroshima Conference on Education and Science in Dentistry is pleased to inform you that your abstract has been accepted for poster presentation during the 5th Hiroshima Conference to be held on 12-13, October in Hiroshima, Japan.

We believe the conference will be of great benefit for you, since the world's outstanding investigators will be present. You will have an excellent opportunity to exchange current knowledge on education and science in dentistry. For further information, please check 5th Hiroshima Conference updates at our websites.

We look forward to your participation at the meeting and seeing you in October.

Sincerely yours,

Motoyuki Sugai, DDS., PhD.

President of the Organizing Committee
5th Hiroshima Conference on Education
and Science in Dentistry
Dean, Faculty of Dentistry,
Hiroshima University



HIROSHIMA UNIVERSITY



UNIVERSITAS AIRLANGGA

FAKULTAS KEDOKTERAN GIGI

Jalan Mayjen. Prof.Dr.Moestopo 47 Surabaya 60132 Telp. (031) 5030255, Fax (031) 5020256
Website : <http://www.fkg.unair.ac.id> – E-mail : fkg@unair.ac.id

Nomor : 3074 /UN3.1.2/KP/2013
Lampiran : 1 (satu) set
Perihal : Permohonan ijin

17 September 2013

Yth. Rektor
Universitas Airlangga
Surabaya

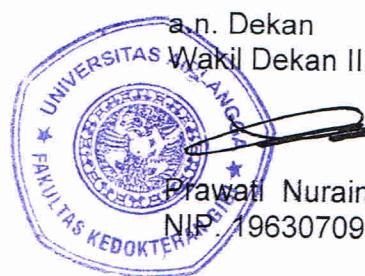
Dengan ini kami beritahukan bahwa staf pengajar Fakultas Kedokteran Gigi Universitas Airlangga tersebut dibawah ini :

Nama : Dr.Ernie Maduratna S., drg.,M.Kes.,Sp.Perio(K)
NIP : 196602121992032001
Unit Kerja : Departemen Periodonsia

mohon ijin tidak masuk kerja pada tanggal 12 s.d. 13 Oktober 2013 keperluan untuk menjadi pembicara pada seminar **5th Hiroshima Conference on Education and Science in Dentistry** di Hiroshima, Jepang (copy undangan terlampir).

Pada prinsipnya kami dapat memberikan ijin, untuk itu mohon perkenan Rektor memberikan ijin kepada yang bersangkutan.

Demikian atas perhatiannya disampaikan terima kasih.

a.n. Dekan
Wakil Dekan II,

Prawati Nuraini, drg.,M.Kes.,Sp.KGA (K)
NIP. 19630709 198701 2 001

Tembusan Yth.

1. Ketua Departemen Periodonsia
2. Yang bersangkutan
pada FKG Unair

Member of :



South-East Asia Association
For Dental Education



UNIVERSITAS AIRLANGGA

FAKULTAS KEDOKTERAN GIGI

Jalan Mayjen.Prof.Dr.Moestopo 47 Surabaya 60132 Telp. (031) 5030255, Fax (031) 5020256
Website : <http://www.fkg.unair.ac.id> – E-mail : fkg@unair.ac.id

SURAT – TUGAS

Nomor : 2736 /UN3.1.2/KP/2013

Yang bertanda tangan dibawah ini :

Nama : Prawati Nuraini, drg.,M.Kes.,Sp.KGA (K)
NIP : 19630709 198701 2 001
Pangkat/gol. : Pembina (gol. IV/a)
Jabatan : Wakil Dekan II

Menugaskan yang namanya tersebut dibawah ini :

Nama : Dr.Ernie Maduratna S., drg.,M.Kes.,SpPerio(K)
NIP : 196602121992032001
Pangkat/gol. : Pembina (gol. IV/a)
Jabatan : Lektor Kepala

Untuk menjadi pembicara pada seminar **5th Hiroshima Conference on Education and Science in Dentistry** pada tanggal 12 s.d. 13 Oktober 2013 di Hiroshima Jepang.

Demikian Surat Tugas ini dibuat untuk dilaksanakan dengan sebaik-baiknya.

Surabaya, 17 September 2013

a.n Dekan
Wakil Dekan II,



Prawati Nuraini, drg.,M.Kes.,Sp.KGA (K)
NIP : 19630709 198701 2 001