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The Pivotal Role of Oral and Maxillofacial Radiology in Dentistry

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Poster Presentation SESSION 2: PP058-PP113
Saturday 12 November 2016: 08.30-09.30 (Hall areas)

PP	Presenting Author's Name	Country	Title
PP058	Prof. Seiji Iida	Japan	3-Dimensional magnetic resonance imaging of maxillo-facial structure
PP059	Dr. Warangkana Weerawanich	Japan / Thailand	Pseudo-ROC analysis to evaluate information contents in the image
PP060	Dr. Hirozaku Ito	Japan	A study of reference material for high Hounsfield Unit area using hydroxyapatite
PP061	Assist. Prof. Wen Chen Wang	Chinese Taipei	Expression of TGFβR1, Smad, Erk1/2, and CCN2 in Radiation-induced fibrosis of Hamster buccal cancer model
PP062	Dr. Motoi Roppongi	Japan	Uptake of Carbon-11-Methionine during proliferation of cultured human cancers cells
PP063	Dr. Shunsuke Okada	Japan	Evaluation of sensitivity to Cetuximab in HNC xenograft mouse model using molecular imaging
PP064	Dr. Kristanto Sempuno	Indonesia	Is ALADA better than ALARA in cone-beam computed tomography used in Asia: A literature review
PP065	Dr. Hening Tjaturina Pramesti	Indonesia	Radiation dose distance effect of intraoral dental x-ray units on colony number of aerobe bacteria
PP066	Dr. Noriyoshi Shiba	Japan	Visual assessment and dose of digital panoramic X-ray image
PP067	Dr. Naoki Kishida	Japan	Dosimetry of 3-Dimentional Cephalometry using KaVo 3D eXam+ cone beam computed tomography and nanoDot dosimeters
PP068	Assoc. Prof. Hiroshi Watanabe	Japan	Estimation of whole body radiation exposure induced by oral cancer brachytherapy using Monte Carlo simulation
PP069	Assist. Prof. Pipop Sutthiprapaporn	Thailand	Dental Age estimation in Thai children aged 7-15 years using the Demirjian's method
PP070	Prof. Sang-Sun Han	South Korea	Validity of the pulp/tooth area ratio of four teeth in panoramic images for age determination in Korean adults
PP071	Mr. Anocha Poommouang	Thailand	Age estimation from pulp/tooth area ratio in central incisors: A study in Thai samples
PP072	Ms. Dyah Maulidarahmah	Indonesia	A comparative study of dental age estimation by using the Alqahtani and Schour-Massler charts

PP 065

Radiation dose distance effect of intraoral dental X-ray units on colony number of aerobe bacteria

H.T. Pramesti, Y. Malinda.

Lecturer at Department of Oral Biology, Faculty of Dentistry, Padjadjaran University, Bandung,- West Java, Indonesia

Introduction: The placement of dental X-ray units has to be concerned regarding the effect of its radiation dose on public area. To minimize its radiation dose risks, routinely evaluation need to be done.

Objectives: To investigate and compare of radiation dose risks on the number of bacteria colony at different distance from intra-oral X-ray units.

Materials and methods: Two sterile bacteriological agars were located at three different places. First was straight under the intra-oral dental X-rays unit. Second was at 3 m in front of the units, and the last was outside room units or about 4 m in front of units separated by wall. Medium was located in two condition, while units was on at 0.0032 mSv for 30 seconds or units is off, then incubated at 37°C for 24 hours. Bacteria colonies grow were counted using colony counter.

Results: There is no difference between the number of colony of units in on condition and off. In first place at both of condition no bacteria colony grew. The highest number was only 5 bacteria colonies which were constituted by coccus in staphyle and spore-rod.

Conclusions: At the distance of 4 m from the dental X-ray units was not allowed for public activity to avoid radiation dose risks.

Keywords: Dental X-ray units, Radiation dose risks, Number of bacteria colony