

# 27<sup>TH</sup> AMERICAN DENTAL CONGRESS

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### **Observers agreement in perception of non-cavitated approximal dental caries by CCD digital radiography at different exposure parameters and corresponding required radiation dose**

Ionizing radiations have a biologic damage effect either somatic or genetic effects on the living system and poor radiographic detection of early proximal caries. In addition to, digital systems are characterized by their flexibility: the acquisition dose can be reduced at the expense of image quality and vice versa. The imaging parameters must be optimised according to the best performance of a particular system. Digital techniques increasingly offer options for dose reduction. At the same time, there is a risk of substantially increasing the patient dose, possibly unawares, due to the lack of visual control. Therefore, implementation of dose indicators and dose monitoring is mandatory for digital radiography. Moreover, proper selection of exposure parameters to avoid re-exposure to patients due to poor image quality. In addition to, identifying and survey parameters that allow the detection of artificial lesions or the semi-quantitative assessment of subjective image impression, as a surrogate for image quality and relate these parameters to a reference of dose. Then, determined accuracy of CCD systems in early detection of proximal caries in regard to the required radiation dose.

#### **Biography**

Mehanny has completed his PhD at the age of 33 years from Minia University and doing postdoctoral studies from University of Texas, School of Dentistry. He is assistant professor of Radiology, Minia University, School of Dentistry, Egypt. He has got a postdoctor scholarship governed by USAID to University of Texas Health and Science Center, USA.

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