

## DAFTAR PUSTAKA

- Angelieri, F., de Cássia Gonçalves Moleirinho, T., Carlin, V., Oshima, C. T. F. and Ribeiro, D. A. (2010) 'Biomonitoring of oral epithelial cells in smokers and non-smokers submitted to panoramic X-ray: Comparison between buccal mucosa and lateral border of the tongue', *Clinical Oral Investigations*. DOI: 10.1007/s00784-009-0345-6.
- Angelieri, F., Yujra, V. Q., Oshima, C. T. F. and Ribeiro, D. A. (2017) 'Do dental X-rays induce genotoxicity and cytotoxicity in oral mucosa cells? A critical review', *Anticancer Research*, 37(10), pp. 5383–5388. DOI: 10.21873/anticancer.11964.
- Ansari, M. O., Parveen, N., Ahmad, M. F., Wani, A. L., Afrin, S., Rahman, Y., Jameel, S., Khan, Y. A., Siddique, H. R., Tabish, M. and Shadab, G. G. H. A. (2019) 'Evaluation of DNA interaction, genotoxicity and oxidative stress induced by iron oxide nanoparticles both in vitro and in vivo: attenuation by thymoquinone', *Scientific Reports*. Springer US, 9(1), pp. 1–14. DOI: 10.1038/s41598-019-43188-5.
- Antonio, E. L., Nascimento, A. J. D., Lima, A. A. S., Leonart, M. S. S. and Fernandes, Â. (2017) 'Genotoxicity and Cytotoxicity of X-Rays in Children Exposed To Panoramic Radiography [Genotoxicidade E Citotoxicidade Dos Raios X Em Crianças Submetidas À Radiografia Panorâmica]', *Revista paulista de pediatria : orgao oficial da Sociedade de Pediatria de Sao Paulo*, 35(3), pp. 296–301. DOI: 10.1590/1984-0462/;2017;35;3;00010.
- Arora, P., Devi, P. and Wazir, S. S. (2014) 'Evaluation of genotoxicity in patients subjected to panoramic radiography by micronucleus assay on epithelial cells of the oral mucosa.', *Journal of dentistry (Tehran, Iran)*
- Asymal, A., Astuti, E. R. and Devijanti, R. (2018) 'Changes in the number of macrophage and lymphocyte cells in chronic periodontitis due to dental X-ray exposure', *Dental Journal (Majalah Kedokteran Gigi)*, 51(2), p. 99. DOI: 10.20473/j.djmk.v51.i2.p99-103.
- Brieger, K., Schiavone, S., Miller, F. J. and Krause, K. (2012) 'Reactive oxygen species : from health to disease', (August), pp. 1–14. DOI: 10.4414/smw.2012.13659.
- Burtenshaw, D., Kitching, M., Redmond, E. M., Megson, I. L. and Cahill, P. A. (2019) 'Reactive Oxygen Species (ROS), Intimal Thickening, and Subclinical Atherosclerotic Disease', *Frontiers in Cardiovascular Medicine*, 6(August), pp. 1–18. DOI: 10.3389/fcvm.2019.00089.
- Cerqueira, E. D. M. M., Meireles, J. R. C., Lopes, M. A., Junqueira, V. C., Gomes-Filho, I. S., Trindade, S. and Machado-Santelli, G. M. (2008) 'Genotoxic effects of X-rays on keratinized mucosa cells during panoramic dental radiography', *Dentomaxillofacial Radiology*, 37(7), pp. 398–403. DOI: 10.1259/dmfr/56848097.
- Cerqueira, E. M. M., Gomes-Filho, I. S., Trindade, S., Lopes, M. A., Passos, J. S. and Machado-Santelli, G. M. (2004) 'Genetic damage in exfoliated cells

- from oral mucosa of individuals exposed to X-rays during panoramic dental radiographies', *Mutation Research - Genetic Toxicology and Environmental Mutagenesis*, 562(1–2), pp. 111–117. DOI: 10.1016/j.mrgentox.2004.05.008.
- Da Silva, A. E., Rados, P. V., da Silva Lauxen, I., Gedoz, L., Villarinho, E. A. and Fontanella, V. (2007) 'Nuclear changes in tongue epithelial cells following panoramic radiography', *Mutation Research - Genetic Toxicology and Environmental Mutagenesis*. DOI: 10.1016/j.mrgentox.2007.05.003.
- Deckbar, D., Jeggo, P. A. and Löbrich, M. (2011) 'Understanding the limitations of radiation-induced cell cycle checkpoints', *Critical Reviews in Biochemistry and Molecular Biology*. DOI: 10.3109/10409238.2011.575764.
- De Kumar, B., Parrish, M. E., Slaughter, B. D., Unruh, J. R., Gogol, M., Seidel, C., Paulson, A., Li, H., Gaudenz, K., Peak, A., McDowell, W., Fleharty, B., Ahn, Y., Lin, C., Smith, E., Shilatifard, A. and Krumlauf, R. (2015) 'Analysis of dynamic changes in retinoid-induced transcription and epigenetic profiles of murine Hox clusters in ES cells', *Genome Research*, 25(8), pp. 1229–1243. DOI: 10.1101/gr.184978.114.
- Elgazzar, A. H. (2006) *The pathophysiologic basis of nuclear medicine: Second edition, The Pathophysiologic Basis of Nuclear Medicine: Second Edition*. DOI: 10.1007/978-3-540-47953-6.
- Fehrenbach, M. J. and Popowics, T. (2015) *Student workbook for Illustrated dental embryology, histology, and anatomy*. Available at: <http://www.elsevier.com/books/illustrated-dental-embryology-histology-and-anatomy/fehrenbach/978-1-4557-7685-6>.
- Karjodkar (2009) *Textbook of Dental and Maxillofacial Radiology*, Jaypee Brothers Medical Publishers (P) Ltd
- Granlund, C., Thilander-Klang, A., Ylhan, B., Lofthag-Hansen, S. and Ekestubbe, A. (2016) 'Absorbed organ and effective doses from digital intra-oral and panoramic radiography applying the ICRP 103 recommendations for effective dose estimations', *British Journal of Radiology*, 89(1066). DOI: 10.1259/bjr.20151052.
- Guruprasad, Y., Naik, R., Pai, A. and Sharma, R. (2012) 'Biomonitoring of genotoxic and cytotoxic effects of gingival epithelial cells exposed to digital panoramic radiography', *Journal of Orofacial Sciences*, 4(2), p. 124. DOI: 10.4103/0975-8844.106207.
- Hassan, I. dan Djakaria, H., 2013. Kematian Sel Akibat Radiasi. Journal of the Indonesian Radiation Oncology Society.
- He, J. L., Chen, W. L., Jin, L. F. and Jin, H. Y. (2000) 'Comparative evaluation of the in vitro micronucleus test and the comet assay for the detection of genotoxic effects of X-ray radiation', *Mutation Research - Genetic Toxicology and Environmental Mutagenesis*. DOI: 10.1016/S1383-5718(00)00077-2.
- Iannucci, J. M. and Howerton, L. J. (2017) *Dental Radiography Principles a d*

### *Tehniques*

- Ighodaro, O. M. and Akinloye, O. A. (2018) 'First line defence antioxidants-superoxide dismutase (SOD), catalase (CAT) and glutathione peroxidase (GPX): Their fundamental role in the entire antioxidant defence grid', *Alexandria Journal of Medicine*. Alexandria University Faculty of Medicine, 54(4), pp. 287–293. DOI: 10.1016/j.ajme.2017.09.001.
- Indias, R. N., Shantiningsih, R. R., Widyaningrum, R. and Mudjosemedi, M. (2017) 'Perbandingan hasil pengukuran pada citra Cone Beam Computed Tomography (CBCT) dengan objek sesungguhnya', *Majalah Kedokteran Gigi Indonesia*, 3(3), p. 28. DOI: 10.22146/majkedgiind.15240.
- Karabas H C, Ozcan I, Sener L T, Guler S D , Albeniz I, dan Erdem T L. 2019. Evaluation of cell and DNA damage induced by panoramic radiography. *Nigerian Journal of Clinical Practice*. Vol. 22 (8). 1041-1048.
- Kesidi, S., Maloth, K., Reddy, K. K. and Geetha, P. (2017) 'Genotoxic and cytotoxic biomonitoring in patients exposed to full mouth radiographs – A radiological and cytological study', *Journal of Oral and Maxillofacial Radiology*. DOI: 10.4103/jomr.jomr\_47\_16.
- Khan, M. N., Mobin, M., Abbas, Z. K., AlMutairi, K. A. and Siddiqui, Z. H. (2017) 'Role of nanomaterials in plants under challenging environments', *Plant Physiology and Biochemistry*. DOI: 10.1016/j.plaphy.2016.05.038.
- Kubelka, D., Garaj-Vrhovac, V. and Horvat, D. (1992) 'Chromosomal aberrations in persons occupationally exposed to annual x-irradiation doses lower than 25 mSv', *Journal of Radiological Protection*. DOI: 10.1088/0952-4746/12/1/005.
- Li, G., Yang, P., Hao, S., Hu, W., Liang, C., Zou, B. S. and Ma, X. C. (2018) 'Buccal mucosa cell damage in individuals following dental X-ray examinations', *Scientific Reports*. Springer US, 8(1), pp. 1–7. DOI: 10.1038/s41598-018-20964-3.
- Lorenzoni, D. C., Fracalossi, A. C. C., Carlin, V., Ribeiro, D. A. and Sant'Anna, E. F. (2013) 'Mutagenicity and cytotoxicity in patients submitted to ionizing radiation', *The Angle Orthodontist*. DOI: 10.2319/013112-88.1.
- Lü, J. M., Lin, P. H., Yao, Q. and Chen, C. (2010) 'Chemical and molecular mechanisms of antioxidants: Experimental approaches and model systems', *Journal of Cellular and Molecular Medicine*, 14(4), pp. 840–860. DOI: 10.1111/j.1582-4934.2009.00897.x.
- Luo, T., Shi, C., Zhao, X., Zhao, Y. and Xu, J. (2016) 'Automatic synthesis of panoramic radiographs from dental cone beam computed tomography data', *PLoS ONE*, 11(6), pp. 1–20. DOI: 10.1371/journal.pone.0156976.
- Luzhna, L., Kathiria, P. and Kovalchuk, O. (2013) 'Micronuclei in genotoxicity assessment: From genetics to epigenetics and beyond', *Frontiers in Genetics*, 4(JUL), pp. 1–17. DOI: 10.3389/fgene.2013.00131.
- Madhavan, R., Kumaraswamy, M., Kailasam, S. and Kumar, S. M. (2012) 'Genetic Damage in Exfoliated Cells from Oral Mucosa of Individuals Exposed to X-

- rays after Panoramic Radiograph: A Cross-sectional Study', *Journal of Indian Academy of Oral Medicine and Radiology*. DOI: 10.5005/jp-journals-10011-1271.
- Mallya, S. and Lam, E. (2018) 'White and Pharoah ' s Oral Radiology'. Elsevier Health Sciences, p. 1608
- Naderi, N. J., Farhadi, S. and Sarshar, S. (2012) 'Micronucleus assay of buccal mucosa cells in smokers with the history of smoking less and more than 10 years', *Indian Journal of Pathology and Microbiology*. DOI: 10.4103/0377-4929.107774.
- Orrenius, S., Nicotera, P. and Zhivotovsky, B. (2011) 'Cell death mechanisms and their implications in toxicology', *Toxicological Sciences*. DOI: 10.1093/toxsci/kfq268.
- Patel, R., Rinker, L., Peng, J. and Chilian, W. M. (2018) 'Reactive Oxygen Species: The Good and the Bad', in *Reactive Oxygen Species (ROS) in Living Cells*. DOI: 10.5772/intechopen.71547.
- Pohl-Rüling. (1992) 'Low Level Dose Induced Chromosome Aberrations in Human Blood Lymphocytes', *Radiation Protection Dosimetry*. DOI: 10.1093/oxfordjournals.rpd.a081616.
- Poprac, P., Jomova, K., Simunkova, M., Kollar, V., Rhodes, C. J. and Valko, M. (2017) 'Targeting Free Radicals in Oxidative Stress-Related Human Diseases', *Trends in Pharmacological Sciences*. Elsevier Ltd, 38(7), pp. 592–607. DOI: 10.1016/j.tips.2017.04.005.
- Ren, N., Atyah, M., Chen, W. Y. and Zhou, C. H. (2017a) 'The various aspects of genetic and epigenetic toxicology: Testing methods and clinical applications', *Journal of Translational Medicine*. DOI: 10.1186/s12967-017-1218-4.
- Ren, N., Atyah, M., Chen, W. Y. and Zhou, C. H. (2017b) 'The various aspects of genetic and epigenetic toxicology: Testing methods and clinical applications', *Journal of Translational Medicine*. DOI: 10.1186/s12967-017-1218-4.
- Ribeiro, D. A., De Oliveira, G., De Castro, G. M. and Angelieri, F. (2008) 'Cytogenetic biomonitoring in patients exposed to dental X-rays: Comparison between adults and children', *Dentomaxillofacial Radiology*. DOI: 10.1259/dmfr/58548698.
- Ribeiro, D. A., Sannomiya, E. K., Pozzi, R., Miranda, S. R. and Angelieri, F. (2011) 'Cellular death but not genetic damage in oral mucosa cells after exposure to digital lateral radiography', *Clinical Oral Investigations*. DOI: 10.1007/s00784-010-0402-1.
- Sairam, V. and Puri, G. (2011) 'Comparison of Measurements of Alveolar Bone Levels by Clinical, Bitewing and Panoramic Radiography', *Journal of Indian Academy of Oral Medicine and Radiology*, 23(March), pp. 543–547. DOI: 10.5005/jp-journals-10011-1219.
- Shantiningsih, R. R., Suwaldi, S., Astuti, I. and Mudjosemedi, M. (2013) 'Korelasi

- antara jumlah mikronukleus dan ekspresi 8-oxo-dG akibat paparan radiografi panoramic (The correlation of micronucleus formation and 8-oxo-dG expression due to the panoramic radiography exposure)', *Dental Journal (Majalah Kedokteran Gigi)*, 46(3), p. 119. DOI: 10.20473/j.djmk.v46.i3.p119-123.
- Shantiningsih, R. R. and Diba, S. F. (2015) 'Efek Aplikasi Patch Gingiva Mukoadesif  $\beta$ -Carotene Akibat Paparan Radiografi Panoramik', *Majalah Kedokteran Gigi Indonesia*. DOI: 10.22146/majkedgiind.9121.
- Supriyadi., 2008. Evaluasi Apoptosis Sel Odontoblas Akibat Paparan Radiasi Ionisasi. *Indonesian Journal of Dentistry*, 15(1), pp.71-76.
- Spitz, D. R. and Hauer-Jensen, M. (2014) 'Ionizing radiation-induced responses: Where free radical chemistry meets redox biology and medicine', *Antioxidants and Redox Signaling*, 20(9), pp. 1407–1409. DOI: 10.1089/ars.2013.5769.
- Squier, C. A. and Kremer, M. J. (2001) 'Biology of oral mucosa and esophagus.', *Journal of the National Cancer Institute. Monographs*. DOI: 10.1093/oxfordjournals.jncimonographs.a003443.
- Srivastava, R. (2011). Step by Step Oral Radiology. 1st ed. New Delhi: Jitendar P Vij, pp.1-16.
- Swift, L. and Golsteyn, R. (2014). Genotoxic Anti-Cancer Agents and Their Relationship to DNA Damage, Mitosis and Checkpoint Adaptation in Proliferating Cancer Cells. *International Journal of Molecular Sciences*, 15(3), pp.3403-3431.
- Takeiri, A., Tanaka, K., Harada, A., Matsuzaki, K., Yano, M., Motoyama, S., Katoh, C. and Mishima, M. (2017) 'Giemsa-stained pseudo-micronuclei in rat skin treated with vitamin D3 analog, pefcalcitol', *Genes and Environment*. *Genes and Environment*, 39(1), pp. 1–7. DOI: 10.1186/s41021-017-0077-9.
- Terradas, M., Martín, M., Tusell, L. and Genescà, A. (2010). Genetik Activities in Micronuclei: is The DNA Entrapped in Micronuclei Lost for The Cell. *Mutation Research/Reviews in Mutation Research*, 705(1), pp.60-67.
- Wahdaningsih, S., Setyowati, E. and Wahyuono, S. (2011) 'AKTIVITAS PENANGKAP RADIKAL BEBAS DARI BATANG PAKIS (*Alsophila glauca* J. Sm)', *Majalah Obat Tradisional*, 16(3), 16(3), pp. 156 – 160
- Whaites, E., (2021) 'Essentials of Dental Radiography and Radiology SIXTH EDITION Nicholas Drage , BDS ( Hons ), FDSRCS', p. 117
- Woroprobosari, N. R. (2016) 'Efek Stokastik Radiasi Sinar-X Dental Pada Ibu Hamil Dan Janin', *ODONTO : Dental Journal*, 3(1), p. 60. DOI: 10.30659/odj.3.1.60-66.
- Xotlanihua-Gervacio, M. del C., Guerrero-Flores, M. C., Herrera-Moreno, J. F., Medina-Díaz, I. M., Bernal-Hernández, Y. Y., Barrón-Vivanco, B. S., Sordo, M. and Rojas-García, A. E. (2018) 'Micronucleus frequency is correlated with antioxidant enzyme levels in workers occupationally exposed to pesticides', *Environmental Science and Pollution Research*. *Environmental*

Science and Pollution Research, 25(31), pp. 31558–31568. DOI:  
10.1007/s11356-018-3130-8.