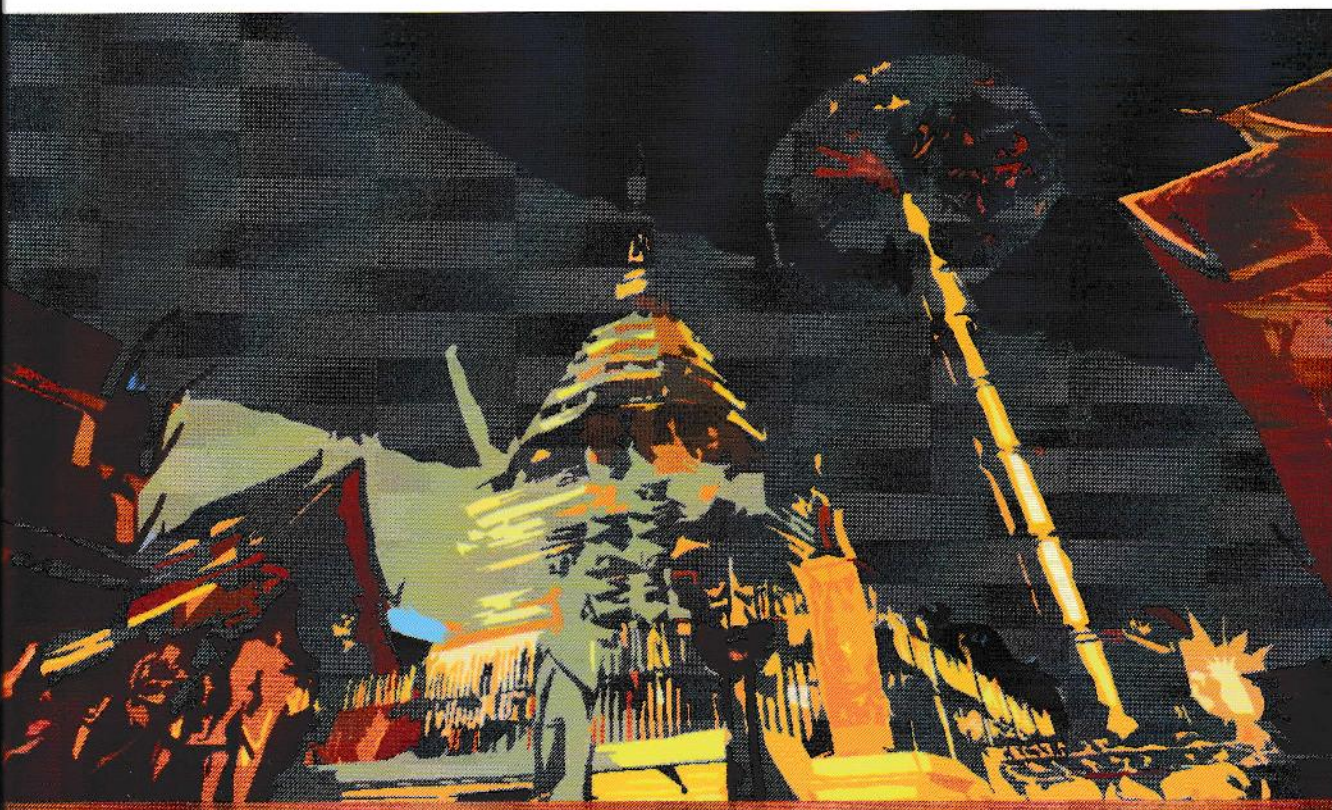

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Bilateral osteoradionecrosis of mandible with fracture involvement: a case report with review of literature

P.J. Putra[1], S. Sitam[2], F. Pramanik[2], D. Dian[2].

[1]Resident Radiology Dentistry, Faculty of Dentistry, University of Padjadjaran Bandung, West Java, Indonesia
[2]Department of Dentomaxillofacial Radiology, Faculty of Dentistry, University of Padjadjaran Bandung, West java, Indonesia

Osteoradionecrosis (ORN) of the jaws, particularly of the mandible, is a long-term and serious complication of therapeutic radiotherapy for head and neck cancer. The mandible is affected more commonly than any other bones of the head and neck region. Radiation therapy in the head and neck cancer has a 20% chance of mandibular ORN. But cases of ORN in Indonesian patients are very rare to be reported. The aim of this study was to present a case of bilateral osteoradionecrosis of mandible with fracture involvement in Indonesian with CBCT.

A 55-year-old male patient reported to the dental department with a chief complaint of sharp bony projection in the mouth. The patient has had a history of exposed bony fragments and pus discharge. Patient had history of larynx malignancy for which he received radiotherapy and chemotherapy. The patient found difficulty in talking and eating. An early imaging finding of ORN was lingual cortical defects near the last molar. Pain followed by erythema, purulent drainage and sub-periosteal abscess seen in imagings are the common signs of ORN. Compared to conventional CT, CBCT can assess both cortical and trabecular bone and it can provide 3-dimensional information, while using lower doses and less cost. CBCT is the best modality to provide information about cortical and trabecular bone as it allows estimations of the extent of the necrotic process and distinguishes ORN from malignant diseases such as bone metastases. In advanced stages, ORN is seen as an irregular area of osteosclerosis with "a cotton wool-like" appearance.

In conclusion, early detection is important for the management of the ORN patients in order to prevent further surgical treatment.

Keywords: Bilateral Osteoradionecrosis, Mandible, Fracture, CBCT.