ABSTRACT

Background. Panoramic imaging is a technique for producing a single tomographic image of the facial structures that includes both the maxillary and mandibular dental arches and their supporting structures. Besides the normal structures, panoramic radiograph also can be used for detecting systemic disease such as atherosclerosis. Image of atherosclerosis in panoramic radiograph is placed at the carotid area. Hypertension is one of the risk factor that could develop atherosclerotic lesions. Purpose. The aim of this study is to obtain the carotid atherosclerosis lesions on panoramic radiograph image in hypertensive subject. Method. Twenty hypertensive and non hypertensive male aged over 35 years were recruited using total sampling method. Subject was divided in two groups. Each group contained of ten person. Both groups underwent the panoramic radiograph examination. The inclusion criteria were male, stage 1 and 2 hypertension, aged over 35 years, had no other systemic diseases. Atherosclerotic lesions findings were defined as radiopaque masses adjacent to the cervical Vertebrae at or below the intervertebral space between c3 and c4 on the panoramic radiograph. Results. Of 10 hypertensive patients, 1 patients (10%) had radiopaque mass detected on digital images. Conclusion. According to the results, hypertension state had no influence on the presence of the carotid atherosclerosis lesions on panoramic radiograph image.

Key words: Panoramic radiograph, atherosclerosis, hypertension