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### ASSOCIATION OF CAROTID CALCIFICATIONS WITH CARDIOVASCULAR RISK FACTORS IN ADULTS; A CROSS- SECTIONAL NESTED CASE-CONTROL STUDY IN DUBAI

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#### Abstract

**Objective:** To evaluate the prevalence of carotid calcification in adults in Dubai and to compare the risk factors that are associated with atherosclerosis and CVDs in patients with and without calcification in the cervical segments of the carotid arteries in panoramic radiographs.

**Methods:** The cross-sectional nested case-control design was used. The cohort was screened for presence of carotid calcifications to determine the prevalence of atherosclerosis. The nested case-control design was used to determine the odd's ratio of risk factors associated with CVDs.

**Results:** The prevalence of carotid calcifications in adults in Dubai (mean age 48.5±10.2) is 2.9% (n = 24). Hypertension was found in 14 (58%) of the cases, and diabetes in 12 (50%) of the patients, while 7 (29%) of the cases had a history of heart diseases. Other risk factors such as smoking, history of stroke, and alcohol showed no significant association with the presence of carotid calcifications. A logistic regression showed that hypertension had an odds ratio of 4.3 (p=0.003).

**Conclusion:** The prevalence of carotid calcification in Dubai is lower than most regions but still worthy to explore. Hypertension and history of heart disease are significant risk factors associated with carotid calcification.