

https://dspace.org/

Abdominal aortic calcification in psoriasis

Ramos, Sofia

2022
https://hdl.handle.net/10539/35206

Downloaded from a DSpace repository. https://dspace.org/

ABSTRACT

Background

Psoriasis is associated with a high prevalence of cardiovascular disease. Abdominal aortic calcification (AAC) is a strong predictor of future cardiovascular events and all-cause mortality in the general population. We investigated the prevalence and risk factors for AAC in South African patients with psoriasis.

Methods

Adult psoriasis patients (n=69) and controls (n=80), matched for gender, ethnicity and body mass index (BMI), who attended tertiary Dermatology and Rheumatology clinics in South Africa, underwent non-contrast abdominal CT scans. Images were assessed for AAC at the supra-coeliac aorta, supra-mesenteric aorta and aortic bifurcation using Horos DICOM viewer.

Results

AAC at any site was significantly higher in the psoriasis group than control group (47.8% vs 22.5%, $p<0.005$). The aortic bifurcation was the commonest site for AAC in both groups, but significantly higher in the psoriasis group (42.0% vs 21.3%, $p<0.005$). The psoriasis group was also more likely to smoke and have hypertension and type 2 diabetes (T2DM) (56.5% vs 25.0%, $p<0.005$; 72.0% vs 55.0%, $p<0.005$; 24.6% vs 3.80%, $p<0.0005$, respectively). Multivariable logistic regression analysis demonstrated that age, smoking and T2DM were independently associated with AAC (odds ratio (95% CIs): 1.16 (1.07, 1.20), 4.30 (2.15, 8.61) and 3.45 (1.09, 15.7) respectively), but psoriasis was not. Forward regression analysis demonstrated that smoking attenuated the association of psoriasis with AAC.

Conclusion

Smoking cessation is essential in psoriatic patients to reduce the risk of cardiovascular events. The clinical utility of AAC detection by CT imaging to risk stratify for hard cardiovascular outcomes needs to be explored.