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## Abstract 11: Presence And Quantification Of Valvular Heart Disease In The SCOT-HEART Trial



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**Introduction:** Valvular heart disease can be identified by the presence of calcification on coronary computed tomography angiography (CCTA). This sub-study of the SCOT-HEART trial assesses the presence and quantification of aortic and mitral valve calcification.

**Methods:** In this post-hoc analysis of the SCOT-HEART trial, the presence of aortic or mitral valve calcification was assessed on CCTA of 1,769 patients. Calcification was assessed using a visual ordinal scale (0, none; mild, 1; moderate, 2; severe, 3) and quantitatively using the Agatston scoring method.

**Results:** Among study participants (mean age  $58 \pm 10$  years; 56% male), aortic valve calcification was present in 242 (14%) and mitral valve calcification was present in 63 (4%). Severe aortic valve calcification was present in 17 patients (1%), moderate in 42 (2%) and mild in 183 (10%). Severe mitral valve calcification was present in 8 patients

(0.5%), moderate in 16 (1%) and mild in 39 (2%). Median aortic valve calcium score was 116 Agatston Units (AU) [Interquartile range (IQR) 51, 244]. Aortic valve calcium score was higher in patients with visually assessed severe calcification (1176 [IQR 703, 1674] vs 247 [IQR 131, 427] for moderate vs 81 [IQR 36, 170] for mild;  $P < 0.001$ ). Median mitral valve calcium score was 359 AU [IQR 46, 742]. Mitral valve calcium score was higher in patients with visually assessed severe calcification (2575 [IQR 1918, 5009] vs 577 [IQR 385, 810] for moderate vs 100 [IQR 14, 363] for mild;  $P < 0.001$ ).

**Conclusions:** Aortic and mitral valve calcification are frequent incidental non-coronary finding on CCTA. Visual ordinal scoring can assess calcification severity compared to quantitative Agatston scoring methods.

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