題名:Dilated left atrium and pulmonary veins in patients with calcified coronary artery: a potential contributor to the genesis of atrial fibrillation.

作者:陳亦仁
Pan NH; Tsao HM; Chang NC; Lee CM; Chen YJ; Chen SA

貢獻者:臨床醫學研究所
上傳時間:2009-08-21T08:58:17Z

摘要:Introduction: Coronary artery disease (CAD) is an important etiology of atrial fibrillation (AF). Coronary artery calcification is a marker of coronary atherosclerosis and coronary events. The purpose of this study was to investigate whether larger left atrium (LA) and pulmonary veins (PVs) were seen by multidetector computed tomography (MDCT) scans in those patients with higher coronary calcium scores.

Methods and Results: A total of 166 patients undergoing MDCT for general check-up (n = 128, 77%) or suspected CAD (n = 38, 23%) were enrolled and divided into a control (calcium score = 0, n = 60), medium calcium score (calcium score = 100400, n = 47), and high calcium score (calcium score >400, n = 59) groups. Diameters and areas of the LA, left atrial appendage (LAA), and PVs were measured by MDCT. The high calcium score group had significantly larger PVs diameters, LAA orifice area (1.9 ± 1.4 cm2, 0.9 ± 0.5 cm2, 0.8 ± 0.4 cm2, P < 0.005), LA anterior-posterior distance (32.2 ± 6.8 mm, 30.4 ± 6.5 mm, 27.3 ± 6.0 mm, P < 0.05), and transverse distance (52.6 ± 7.3 mm, 50.2 ± 9 mm, 49.5 ± 4.6 mm, P < 0.05) than the medium calcium score and control groups. Six (3.6%) patients with paroxysmal AF had higher calcium scores and larger diameters of LA, LAA, and PVs than those (96.4%) without paroxysmal AF. Two patients in the high calcium score group had calcified PVs localized to the right upper and left upper PVs. The incidence of calcified PVs was 1.2% for the total

patients and 3.3% for the high calcium score patients.

Conclusion: In the presence of high calcium scores in this patient population, the LA, LAA, and PVs were enlarged.

Manuscript received 10 March 2008; Revised manuscript received 10 July 2008; Accepted for publication 2 June 2008.