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Management of Atrial Fibrillation

A Practical Approach

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4.6 Atrial fibrillation and coronary artery disease including acute myocardial infarction

CAD is another major risk factor for AF and increases the risk of AF by four- to fivefold. AF in the setting of chronic CAD and previous myocardial infarction (presence of scar tissue)

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is a dangerous combination that promotes malignant ventricular arrhythmias and increases the risk of SCD.

AF is a common complication of acute myocardial infarctions (occurring in 6-13% of patients presenting with acute myocardial infarction) and poses an increased risk of morbidity, mortality, prolongs the hospital stay, and may facilitate spontaneous initiation of ventricular tachyarrhythmias. Pedersen et al. (2006) reported that AF and atrial flutter following acute myocardial infarction increase the risk of both sudden and non-sudden cardiovascular death. The combination of CAD and AF also complicates the antithrombotic management strategy for both conditions. AF management with antiarrhythmic therapy in this setting increases the risk of proarrhythmias and SCD. This relationship is further complicated in the setting of acute myocardial infarction. Berton et al. (2009) recently reported on a 7-year follow-up of the adverse effect of AF during acute myocardial infarction. The study comprised 505 patients who were admitted to intensive care units with definite acute myocardial infarction. After adjusting for other co-risk factors, incident AF or atrial flutter was associated with poor prognosis in long-term follow-up, specifically an increased risk of SCD. Management strategies should focus on prevention of AF and atrial flutter in this setting including antiarrhythmic therapy, antithrombotic therapy, and ICD therapy for patients at high risk of SCD. (See Chapter 5.)

- Amat-Santos IJ, Rodes-Cabau J, Urena M, DeLarochelliere R, Doyle D, et al. (2012). Incidence, predictive factors and prognostic value of new-onset atrial fibrillation following transcatheter aortic valve implantation. J Am Coll Cardiol 59: 178–88.
- Anter E, Jessup M, Callans DJ (2009). Atrial fibrillation and heart failure: treatment considerations for a dual epidemic. Circulation 119: 2516–25.
- Baber U, Howard VJ, Halperin JL, Soliman E, Zhang X, McClellan W, et al. (2011). Association of chronic kidney disease with atrial fibrillation among adults in the United States: REasons for Geographic and Racial Differences in Stroke (REGARDS) Study. Circ Arrhythm Electrophysiol 4: 26–32.
- Banerjee A, Taillandier S, Olesen JB, Lane DA, Lallemand B, Lip GYH, et al. (2012). Ejection fraction and outcomes in patients with atrial fibrillation and heart failure: the Loire Valley Atrial Fibrillation Project. Eur J Heart Fail 14: 295–301.
- Bansal N, Fan D, Hsu C, Ordonez JD, Marcus GM, Go AS (2013). Incident atrial fibrillation and risk of end-stage renal disease in adults with chronic kidney disease. Circulation 127: 569–74.
- Barrett TW, Abraham RL, Jenkins CA, Russ S, Storrow AB, Darbar D (2012). Risk factors for bradycardia requiring pacemaker implantation in patients with atrial fibrillation. Am J Cardiol 110: 1315–21.
- Belhassen B (2013). Continuous positive airway pressure after circumferential pulmonary vein isolation. J Am Coll Cardiol 62(4): 306–7.
- Benjamin EJ, Chen PS, Bild DE, Mascette AM, Albert CM, Alonso A, et al. (2009). Prevention of atrial fibrillation: report from a national heart, lung and blood institute workshop. Circulation 119: 606–18.
- Benjamin EJ, Levy D, Vazisiri SM, D'Agostino RB, Belanger AJ, Wolf PA (1994). Independent risk factors for atrial fibrillation in a population-based cohort: the Framingham Heart Study. JAMA 271: 840-4.
- Benjamin EJ, Wolf PA, D'Agostino RB, Silbershatz H, Kannel WB, Levy D (1998). Impact of atrial fibrillation on the risk of death: the Framingham Heart Study. Circulation 98: 946–52.
- Berti D, Hindriks JML, Brandes A, Deaton C, Crijns HJGM, Camm AJ, et al. (2013). A proposal for interdisciplinary nurse-coordinated atrial fibrillation expert programmes as a way to structure daily practice. Eur Heart J 34: 2725–30.
- Berton G, Cordiano R, Cucchini F, Cavuto F, Pellegrinet M, Palatini P (2009). Atrial fibrillation during acute myocardial infarction: association with all-cause mortality and sudden death after 7-year follow up. Int J Clin Pract 63: 712–21.
- Bigi MA, Aslani A, Shahrzad S (2007). Clinical predictors of atrial fibrillation in Brugada syndrome. Europace 9: 947–50.