

Title: Exploring the subtle yet significant impact of atrial fibrillation on cardiovascular symptoms

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Abstract: Cardiovascular disease (CVD) relates to a variety of disorders that impact the heart and blood arteries, such as peripheral artery disease, heart failure, coronary artery disease, and stroke. CVD is a major global cause of death that imposes an immense strain on public health and healthcare systems. People of every age group, genders, and socioeconomic backgrounds are affected. Certain risk factors lead to a higher occurrence of CVD in specific populations which include smoking, obesity, diabetes, hypertension, physical inactivity, improper nutrition, and elevated cholesterol levels. The psychological effects on the heart muscles are linked to CVDs such as heart failure (HF) and atrial fibrillation (AF). The ineffectiveness of the heart's pumping action on the body's cells is the cause of HF. Dyssynchronous atrial contraction with irregular ventricular excitation results from high-frequency stimulation of the atrium, which causes AF. Due to its association with thromboembolic events and heart failure, atrial fibrillation is the most common persistent cardiac arrhythmia globally and has significant adverse effects on cardiovascular health. A chaotic electrical activity in the atria characterizes atrial fibrillation (AF), which breaks off the regular heart rhythm and causes irregular, frequently fast heartbeats. Despite its widespread occurrence and clinical importance, AF may exhibit mild or unclear symptoms, making prompt diagnosis more difficult and requiring more awareness among patients and doctors[1]. AF causes the atria's typical function as reservoirs, conduits, and pumping chambers to fail. Also palpitations are triggered by rapidly conducting atrial impulses, which cause an irregular and fast ventricular rhythm. Long-term consequences could include the development of heart failure or its exacerbation, as well as irregularities in microcirculatory flow that would lead to ischemia.

Keywords: Cardiovascular disease (CVD), Heart failure (HF), Atrial fibrillation (AF), Coronary artery disease, Stroke, Peripheral artery disease

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