

Improved treatment for diabetes type 2 associated heart failure

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Respected Editor, Heart failure is when the heart muscle becomes stiff, weakened or enlarged, which makes it unable to pump blood effectively throughout the body. This can lead to a fluid buildup in the body, shortness of breath, fatigue, and other symptoms. Heart failure (HF) has many causative factors. However, the rising incidence and mortality rates of diabetes associated with heart failure have transformed it into a significant public health issue in Pakistan. Based on estimates from the International Diabetes Federation in a 2022 study, Pakistan has the highest comparative prevalence of diabetes, reaching 30% in 2021. It is projected to exceed 33% by 2045, maintaining its position at the top. When ranked by the number of adults with diabetes, Pakistan ranks third in 2021 and is predicted to retain this position in 2045. China and India hold the first and second positions, respectively.¹ Diabetes prevalence in adults almost doubled between 1980 and 2014 worldwide.² While there exist various risk factors such as hypertension, renal dysfunction, coronary artery disease, heart valve problems, cardiomyopathy, and obesity, among others, for HF. Diabetes mellitus was independently associated with an 80% increased risk of HF.³ The standard treatment as per the study published in 2001 treatment for congestive HF is therapy with ACE inhibitors, β -blockers, and diuretics. Digoxin for patients with atrial fibrillation. Aldosterone antagonists recommended in patients with stable New York Heart Association class III or IV HF. If ACE inhibitors are not tolerated, angiotensin receptor blockers, hydralazine and isosorbide are recommended.⁴ There have been clinical trials in people with diabetes to see if diabetes drugs can also treat and/or reduce the risk of cardiovascular disease. In clinical trials, a type of diabetes drug, sodium-glucose cotransporter-2 inhibitors (SGLT-2is, including canagliflozin, dapagliflozin, empagliflozin, and ertugliflozin), has helped people with both diabetes and cardiovascular disease.⁵ Considering the rising risk of diabetes associated with heart failure in Pakistan, physicians should encourage the use of SGLT-2 inhibitors like dapagliflozin and empagliflozin. Furthermore, doctors will be able to manage the disease and prevent it from reaching its final stages more effectively if improved

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screening techniques for diabetes are introduced and implemented; such as widespread access to blood glucose testing, utilizing risk assessment tools such as questionnaires or predictive algorithms can identify individuals who are at a higher risk of developing diabetes and target them for testing. Moreover, making lifestyle modifications such as quitting smoking and limiting alcohol consumption. These diagnostic screenings and monitoring techniques are effective methods for the early detection and managing hypertension in diabetes patients as well. Therefore, Healthcare provision in Pakistan should ensure the implementation of American Heart Association 2022 guidelines to screen and manage Heart failure and diabetes-associated heart failure. As well as providing quality diabetes care, including education and support, can help individuals effectively manage their diabetes and reduce the risk of complications. Moreover, hosting awareness-raising events to educate primary care physicians about the management of diabetes and heart failure, as well as the advantages of referring patients to endocrinologists and cardiologists in a timely manner, is a critical need.

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