



Editorial

Screening and Treatment Intervention for Insulin Resistance/Hyperinsulinemia in the General Population to Prevent Heart Failure or Slow Its Worsening

Serafino Fazio ^{1,*}, Flora Affuso ², Valeria Fazio ³ and Valentina Mercurio ⁴¹ Department of Internal Medicine, Federico II University, 80131 Naples, Italy² Independent Researcher, 80129 Naples, Italy; flora.affuso70@gmail.com³ Cardiologia, Ospedale Santa Maria delle Grazie, 80078 Pozzuoli, Italy; valeria.fazio1986@gmail.com⁴ Dipartimento di Scienze Mediche Traslazionali, Federico II University, 80131 Naples, Italy; valentina.mercurio@unina.it

* Correspondence: fazio0502@gmail.com

† This author has retired.

Despite significant progress in the prevention and treatment of cardiovascular diseases in recent decades, they remain the leading causes of death worldwide [1]. In particular, heart failure, the common endpoint of most heart diseases, affects between 1 and 3% of the adult population worldwide, but increases to approximately 10% in adults over 70 years of age, and exceeds 20% in those over 80–85 years of age [2,3]. HF is the leading cause of hospital admissions in Italy, accounting for approximately 2% of total hospital admissions, with high rehospitalization rates and very high healthcare costs [3]. In recent years, cases of HFpEF have been increasing steadily, particularly in women, and have now exceeded 50% of HF cases. It is well known that HFrEF and HFpEF have completely different causes and pathophysiological mechanisms, and that their therapies differ accordingly. In fact, while HFrEF has well-defined treatments according to guidelines, HFpEF has no clearly defined therapies [4]. Important recognized causes of HF, particularly HFpEF, are cardiometabolic diseases. Among these, insulin resistance, with associated hyperinsulinemia, is very prevalent in the general population of developed and developing countries [5,6]. It is the principal cause of type 2 diabetes, preceding its development by many years—even 15 or more [7,8]. In the meantime, hyperinsulinemia produces significant damage to the cardiovascular system, to the extent that individuals with type 2 diabetes are treated, according to guidelines, as if they had already experienced a cardiovascular event [9]. It has been shown that hyperinsulinemia associated with insulin resistance is also linked to concentric left ventricular remodeling and diastolic dysfunction, main features of HFpEF [10–13].

Therefore, to reduce hospitalizations, deaths, and healthcare costs resulting from HF, we believe that it would be extremely important to implement a more thorough cardiovascular disease prevention plan, particularly by intervening early in the recognition and treatment of insulin resistance in the general population, and finding treatments that more effectively block or slow the worsening progression of HF.

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