

CARDIOVASCULAR DISEASE

Heart Failure and Quality of Life

Decreased quality of life (QOL) is frequently observed in patients with heart failure (HF), and poor QOL is associated with increased rates of hospitalization and mortality. While most clinicians and researchers define QOL as a multidimensional and subjective concept, few studies have examined QOL through the eyes of patients. As such, researchers from Indiana University, Indianapolis; University of Kentucky, Lexington; and University of British Columbia, Vancouver, Canada interviewed patients with HF about their definitions of and viewpoints on QOL.

The researchers collected qualitative data from 14 men and six women with a mean (SD) age of 58 (10) years. The majority (90%) of the patients were white and, while only 60% were married, 75% of the patients lived with someone. Many of the patients had comorbidities, the most common of which were hypertension (80%), atrial fibrillation (45%), diabetes (30%), and kidney disease (20%).

A primary investigator interviewed each patient individually. Interview questions were developed by the primary investigators, and two HF experts reviewed and revised the questions. All interviews were audio recorded and transcribed, and the audio interviews and transcriptions were compared and analyzed for content.

The researchers found that patients defined QOL as the ability to perform physical and social activities, maintain happiness, and engage in fulfilling relationships. They also found that,

“in patients with HF, QOL does not mean the absence of emotional distress or psychologic well-being; rather it is the ability to pursue happiness or enjoy spending time with significant others.” The researchers suggest that this definition may be the reason why many of the study participants evaluated their QOL positively. Because most current tools used to assess QOL focus on negative factors (such as decreased physical capabilities) the researchers suggest that further studies be completed on developing assessment tools that focus on positive psychological and social factors.

Source: *Heart Lung*. 2009;38(2):100–108.
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DIABETES MANAGEMENT

Do Lower Serum Creatinine Levels Increase the Risk of Diabetes?

Lower levels of serum creatinine indicate a lower volume of skeletal muscle, and insulin targets skeletal muscle. As a result, low levels of serum creatinine may indicate an increased risk of type 2 diabetes, say investigators from the Osaka City University Graduate School of Medicine and the Kansai Health Administration Center, Nippon Telegraph and Telephone West Corporation, both in Osaka, Japan. They investigated the connection between serum creatinine and type 2 diabetes in participants of the Kansai Healthcare Study, an ongoing cohort study that examines the risk factors for cardiometabolic diseases.

The researchers analyzed data on 8,570 Japanese men, aged 40 to 55 years, who were not taking oral hypoglycemic medications or insulin

and who had baseline fasting plasma glucose levels less than 126 mg/dL and serum creatinine levels of less than 2 mg/dL. The participants' fasting plasma glucose and serum creatinine levels, height, weight, body mass index (BMI), physical activity, smoking habits, and alcohol intake were assessed annually for four years.

At four years, 877 men had developed type 2 diabetes. The researchers found that serum creatinine levels between 0.4 mg/dL and 0.6 mg/dL increased the risk of diabetes—and this risk remained after stratifying patients according to median BMI. Serum creatinine levels were not found to be significantly connected to any of the other variables collected.

While Asians and Asian Americans are reported to have a lower prevalence of obesity than whites, they have a higher percentage of body fat at the same BMI, which may suggest a lower level of skeletal muscle mass as well. The researchers note that the study did not take into account such factors as fasting plasma insulin levels, dietary factors, and waist circumference, which also may play a role in the development of type 2 diabetes. Other limitations of the study included the fact that the participants all worked at the same company, all were members of the same ethnic group, and did not include women. ●

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