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## **Poster Abstract: Cardiac Cachexia: Diagnostic Complications with Focusing on Weight Loss**

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**Author Names:** Donna Fitzsimons, Loreena Hill, Matthew A. Carson, Lana Dixon, Patrick Donnelly, Susan E. Piper, Gareth Thompson, Theresa A. McDonagh, and Joanne Reid

**Cardiac Cachexia: Diagnostic Complications with Focusing on Weight Loss.**

**Introduction:** Cardiac cachexia is a wasting syndrome that may present in heart failure, with clinical identification being challenging. This study explored the difficulties with applying the recommended diagnostic criteria for cardiac cachexia in heart failure patients.

**Methods:** A cross-sectional study was conducted in 200 patients with NYHA III-IV heart failure. Patients were assessed for cachexia based on the Evans et al. (2008) diagnostic criteria: 5% weight loss in  $\leq 12$  months or BMI  $< 20 \text{ kg/m}^2$  plus 3 of: 1) Decreased muscle strength, 2) Fatigue, 3) Anorexia, 4) Low fat-free mass index, and 5) Abnormal biochemistry (elevated inflammatory markers (CRP & IL-6), anaemia (Hb  $< 12 \text{ g/dL}$ ), and serum albumin ( $< 3.2 \text{ g/dL}$ )).

**Results:** 30 out of 200 participants (15%) were identified with cachexia. The cachectic group had significantly ( $p < 0.05$ ) lower BMI, fat-free mass index, muscle strength, red blood cell count, and albumin; and significantly higher C-reactive protein, fatigue, and anorexia issues. Oedema was present in 60.5% of the sample and 85% of patients possessed an average BMI of  $29.9 \text{ kg/m}^2$  (borderline of obese classification). 10.5% of participants met the BMI cut-off of  $< 20 \text{ kg/m}^2$  from the cachexia diagnostic criteria.

**Conclusions:** The recommended diagnostic criteria identified a 15% prevalence of cachexia in patients with advanced heart failure. However, oedema may overshadow the detection of weight loss and muscle wasting. Moreover, a higher BMI cut-off value for the diagnostic criteria may be required. Future research should identify cachexia biomarkers to improve clinical identification of the syndrome.