

**Anemia and Low Hemoglobin Levels are Associated with Significant Erectile Dysfunction in Men with Coronary Artery Disease**

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Introduction: Erectile dysfunction (ED) is prevalent among coronary artery disease (CAD) patients. However, the association between ED, anemia, and low hemoglobin (Hgb) levels, has never been studied in CAD patients, to the best of our knowledge.

Methods: We studied the association between significant ED, anemia, and low Hgb levels, in CAD patients. CAD was defined as >50% stenosis in one or more coronary arteries documented by angiography. Anemia was defined as Hgb levels <13g/dL. Excluded were men with Hgb levels <10g/dL. All subjects filled the Sexual Health Inventory for Males (SHIM) questionnaire in order to detect ED and assess its severity. Significant ED was defined as SHIM questionnaire scores <17.

Results: The cohort included 218 men with mean ages of 62.7±11.9 years, mean Hgb levels of 13.8±1.4 g/dL, and mean SHIM scores of 15.9±7.9. Overall, 83 (38.1%) men had significant ED, 62 (28.4%) men had anemia, and 39 (17.9%) men had both. Men with anemia had higher prevalence of significant ED relative to men without anemia (62.9% vs. 28.2%; p=0.0002), as well as lower mean SHIM scores (11.8±8.9 vs. 17.5±6.8; p<0.0001). Men with significant ED had higher prevalence of anemia relative to men without significant ED (51.8% vs. 14.1%; p<0.0001), as well as lower mean Hgb levels (13.2±1.5 vs. 14.1±1.2g/dL; p<0.0001). Hgb levels correlated with SHIM questionnaire scores (r=0.24; p<0.0001) following adjustment for age (figure). In a multivariate analysis, age and Hgb levels were the only factors independently associated (p<0.0001) with significant ED in men with CAD, rather than the number of stenotic coronary arteries, medications, and cardiovascular risk factors.

Conclusions: Anemia and low Hgb levels are associated with significant ED in men with CAD. Whether increasing Hgb levels also improves ED in men with CAD is a matter for future prospective studies.