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Association of Platelet Count With Body Composition in Long-term Hemodialysis Patients

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### ASSOCIATION OF PLATELET COUNT WITH BODY COMPOSITION IN LONG-TERM HEMODIALYSIS PATIENTS

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Although the association between protein-energy wasting (PEW) and mortality has been shown repeatedly, the mechanism relating PEW to adverse patient clinical outcomes is still unknown. Recent data suggest that even relative thrombocytosis may be associated with the severity of cardiovascular disease in end stage renal disease patients. We propose that platelet count as a marker of PEW is associated with body composition (BC).

Using linear regression models adjusted for case-mix and surrogates of PEW and inflammation, we examined the association of baseline platelet count with BC in a prospective observational cohort of 486 hemodialysis (HD) patients followed from 2001 to 2006.

Patients were  $54 \pm 14$  years old, 52% female, 48% diabetics, 33% Black and 49% Hispanic. In fully adjusted models, low platelet counts in Blacks (Beta: -5.32; CI: -10.28 to -0.37) was significantly associated with lower body fat percentage, while higher platelet counts in Hispanics (Beta: 2.92; CI: -0.01 to 5.99) was associated with higher body fat percentage. Low baseline platelet counts in Blacks predicted a higher body fat percentage after 1 year follow up (Beta: 4.56; CI: 1.25 to 7.87).

Platelet count is associated with body composition and its changes over time in maintenance HD patients; however the associations differ across racial and ethnic subgroups.

