

Human Serum Albumin in the Clinical Syndrome of Heart Failure

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Abstract

Hypoalbuminemia is common in patients with heart failure, and this condition becomes more prevalent with increasing age and illness. Hypoalbuminemia is thought to result mainly from malnutrition, inflammation and cachexia. Other causal factors include hemodilution, liver dysfunction, protein-losing enteropathy, increased transcapillary escape rate, and nephrotic syndrome. According to Starling's law, low plasma oncotic pressure related to hypoalbuminemia induces a fluid shift from the intravascular to the interstitial space, and there is now clinical evidence that hypoalbuminemia facilitates the onset of cardiogenic pulmonary edema. Hypoalbuminemia has emerged as an independent predictor of incident heart failure in end-stage renal disease and elderly patients. Recent data also suggest that hypoalbuminemia provides prognostic information incremental to the usual clinical and biochemical variables in patients with heart failure regardless of clinical presentation. The presence of hypoalbuminemia in patients with heart failure may have potential therapeutic consequence in clinical practice. If present, subclinical excess of fluid must be removed. A dietary survey should also be performed, and renitrition may be indicated. It is unknown whether targeted nutritional intervention and albumin administration confer benefits to hypoalbuminemic patients with heart failure, and further research is warranted in this setting.

Key Words: [Plasma oncotic pressure](#), [prognosis](#), [nutritional intervention](#), [albumin administration](#)

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