Homocysteine-Related Venous Ulcer:
Editorial

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Venous ulcers still remain a common health burden for patients, health professions and health insurance companies as well.\(^1\) The responsible mechanisms of ulcer formation, although have been highly evaluated, are found as fibrin cuff, leucocyte trapping and chronic inflammation.\(^2\) As presented by Simon and coworkers, by an excellent review in \textit{BMJ}, the treatment for venous ulceration is almost treating the elevated venous hypertension.\(^2\) Although this may be the case in the treatment of many venous ulcers, the other etiologies may be kept in mind in evaluating the wound. In this Editorial, besides of many etiologies, the point should be given in dietary habits while managing venous ulcers. Dietary habits remain the basis of all vascular type of pathologies.\(^3\) As Napoli and associates presented in their Editorial in \textit{Cardiovascular Research}, an expanding efford has been made to investigate and evaluate the mechanisms of vascular lesions with nutrition.\(^3\)

Homocysteine (Hcy) is a sulphhydryl-containing metionine which leads endothelial damage, inhibition of nitric oxide and oxidation.\(^4\) Plasma Hcy levels differ among populations accepted average level: 5-15 μmol/L.\(^4\) Although genetic defects, as enzyme or related factors deficiencies, are highly responsible factor for its metabolism, nutritional habits (i.e. vitamin insufficiencies) remain one of the common acquired factor for defective metabolism.\(^4\) Years of 1960s were the time when Hcy deserves required attention in the pathology of vascular diseases.\(^5\) McCully presented experiences in patients with Hcy in the excellent review, published in \textit{The American Journal of Clinical Nutrition}.\(^6\) Based on Framingham Heart Study\(^7\) and 3rd National Health and Nutrition Examination Survey,\(^8\) McCully proposed dietary deficiencies of vitamins (B-6,B-10,B-12) in patients with vascular diseases associate with elevated levels of Hcy.\(^6\) Hyperhomocysteinemia was finally found an important risk factor for not only arterial diseases but venous pathologies as well.\(^9\) The main key point for venous diseases is the endothelial damage, eventually leads to the development of ulcer, which might be better modulated by B-vitamines, by decreasing the level of Hcy and maintai-
ning nitric oxide synthesis, cyclooxygenase inhibition, leading to repairing endothelial function.\(^{10}\)

Shankar and associates treated a patient with venous ulcer by administration of B-type vitamins.\(^{11}\) Endothelium damage with high levels of Hcy in patients with venous ulcer, might be treated with not only by developing strategies to lowering venous pressure, using expensive surgical wound dressings, establishing invasive surgical approach but by dietary supplements as well.

**REFERENCES**