Hemoglobin, Vitamin C, and Peritoneal Dialysis

The correlation between hemoglobin, vitamin C, and peritoneal dialysis (PD) is an interesting topic [1]. Some previous reports addressed the presence of vitamin C deficiency in PD patients and the potential impact of this deficiency on red blood cell production. Clearly, other factors, such as hemoglobinopathies, myelodysplasia, vitamin B₁₂ or folate deficiency, and myeloma, among others, can have an impact on anemia and have nothing to do with vitamin C deficiency. Finkelstein et al. concluded that “plasma vitamin C is positively associated with higher Hb level” and “Vitamin C status could play a major role in helping PD patients to utilize iron for erythropoiesis and achieve a better Hb response during anemia management” [1].

It may be reasonable to give vitamin C to people with the anemia typically caused by renal failure and who are on erythropoietin. What we need to clarify is the concern about inappropriate use of vitamin C. Giving vitamin C to patients with anemia contributed to by factors such as hemoglobinopathy should be done with caution [2]. In fact, it is questionable whether vitamin C should be administered to PD patients with hemoglobinopathy at all. Giving extra vitamin C might be harmful in patients who have high iron stores as well [3]. Sundl et al recently recommended the use of low-dose vitamin C supplementation for PD patients [4].

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REFERENCES