
Vitamin D Deficiency Linked to Longer Respiratory Support



Results of a new study show that vitamin D status could influence the duration of respiratory support needed for surgical intensive care patients. The findings are published in the OnlineFirst version of the *Journal of Parenteral and Enteral Nutrition* (JPEN), the research journal of the American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.).

The prospective cohort study, conducted by researchers from Boston's Massachusetts General Hospital and Harvard Medical School, involved 210 critically ill surgical patients. The research team found that plasma 25-hydroxyvitamin D (25OHD) levels on admission to the surgical ICU were inversely associated with the need for mechanical ventilation in critically ill surgical patients.

Essentially, an optimised vitamin D status is important for ideal musculoskeletal health, regulation of innate and adaptive immunity, and expression of endogenous antimicrobial peptides. Hence, the research team hypothesised that low levels of 25OHD likely contributed to respiratory muscle weakness, systemic inflammation, and infections, which all affect the duration of respiratory support.

However, the researchers said the findings must be interpreted cautiously in view of the observational nature of their study and other limitations.

According to the research team, further studies are needed to validate their findings, to assess potential benefits of aggressive vitamin D supplementation in critical illness, and to identify how vitamin D may reduce the need for mechanical ventilation in surgical ICU patients.

A.S.P.E.N. is dedicated to improving patient care by advancing the science and practice of nutrition support therapy and metabolism. Founded in 1976, A.S.P.E.N. is an interdisciplinary organisation, whose members are involved in the provision of clinical nutrition therapies, including parenteral and enteral nutrition. The society has more than 6,000 members from around the world, including dietitians, physicians, scientists, nurses, nurse practitioners, pharmacists, students, and other health professionals from every facet of nutrition support clinical practice, research and education.

Source: [American Society for Parenteral and Enteral Nutrition \(A.S.P.E.N.\)](#)

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Published on : Thu, 8 Jan 2015