估計還是測量？維生素 D 對新冠肺炎的真正作用是什麼？

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http://www.doctoryourself.com/omns/v17n14.shtml

The Chinese translation of this article is made possible by a generous grant from Dr. Bill Grant and from the Cheng Integrative Health.

本文翻譯工作得到 Bill Grant 博士資助及上海成氏健康資助。

（OMNS2021 年 6 月 12 日）最近的一項研究使用了基因方法來估計個體的維生素 D（血液中 25OHD）水準。該方法稱為"孟德爾隨機分析，即使用與 25OHD 代謝相關基因的某些相關基因的突變(SNP)來估計個體的代謝活動。通過分析 COVID-19 患者的基因組成，該研究得出結論，維生素 D 不能有效降低 COVID-19 感染的風險[1]。

然而，這項研究存在若干局限性。首先，這項研究實際上並沒有測定血液中 25OHD 的濃度—它只研究了與維生素 D 新陳代謝相關的基因。其次，儘管它研究了 14,000 多名新冠肺炎患者和 120,000 多名歐洲血統的非新冠肺炎個體，但這項研究排除了非洲和亞洲血統的個體。此外，研究中使用的孟德爾隨機分析方法並未確定估計的維生素 D 狀況與疾病風險或嚴重程度的相關性[2]。

這項研究的首要問題是，個體(與群體相反)的維生素 D 水準不能（甚至不能近似地）由其基因來決定。根據基因構成，存在維生素 D 低水準風險可能的個體，或許能通過充足的日曬或補充量來預防維生素 D 缺乏。而那些據其基因構成並無維生素 D 低水準風險的個體，也可能因欠缺日曬或補充量而缺乏。此外，由於排除了非洲或亞洲血統的個體，該研究準確性在分析時產生了偏倚。環境研究表明，居住在高緯度地區（如歐洲）的深膚色個體存在維生素 D 缺乏的風險[3-6]，他們也可以通過日曬或補充維生素 D 來預防不足。

如果這項研究納入居住在北歐的非洲和/或亞洲後裔，很可能會得出一個不同的結論—維生素 D 缺乏會增加患新冠肺炎的風險。當然，通過分析患者血液中 25OHD 濃度以確定其患新冠肺炎的風險可能更可靠。

此外，這項研究忽略了其他有助於降低嚴重感染風險的維生素和礦物質(維生素 C、鎂、鋅、硒等的水準)，其都有協同作用。例如，人體利用維生素 D 取決於鎂水準，而鎂在許多人中是缺乏的[7]。

在過去 6 個月（2020 年 12 月至 2021 年 5 月）中發表的數十項研究表明，維生素 D 缺乏與 COVID-19 風險之間明顯相關[8-44]，似乎不太可能這些表明了因果關係的研究都是錯的。

維生素 D 不是一種藥物，不因其在干預性研究中缺乏有效性的因果證據而阻礙其使用。它是一種必需營養素，作為補劑，世界各地的醫生可以安全和負責地推薦使用，以幫助消除不足，改善健康並終止新冠肺炎大流行。

為了使免疫系統良好運轉，身體不僅需要足量的維生素 D，還需要足夠的鎂、維生素 C、鋅、硒和其他維生素和礦物質等許多必需營養素。安全、足夠劑量的維生素 D 補劑以及其他必需營養素可以幫助和增強免疫系統，防止在嚴重新冠肺炎中造成極高死亡率的細胞因數風暴[45-50]。

對於維生素 D 來說，劑量和血藥濃度很重要。成人推薦劑量是 5000IU/天，但應該根據體重進行調整。由於維生素 D 是脂溶性的，較重的個體可能需要更大的劑量，如 10000 IU/天。服藥幾個月後，建議測定其血藥濃度，25OHD 的理想血藥濃度為 50-60 ng/ml(125-150nmol/L)。推薦鎂的成人攝入量是 400-600mg/天（包括飲食和補劑），但這也可能需要根據實際體重進行調整。維生素 C 的推薦劑量≥1500-3000mg/天，分次服用。你應該和你的醫生討論必需營養素的劑量。

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