

Antibody titer

Antibody titer refers to the concentration or level of antibodies in a person's blood. Antibodies are proteins produced by the immune system in response to the presence of foreign substances, such as bacteria, viruses, or other antigens. Measuring antibody titers is a common way to assess the strength of the immune response to a particular antigen.

The titer is determined through a laboratory test known as an antibody titer test. This test involves diluting a blood sample and exposing it to a specific antigen. The dilution at which the antibodies are still detectable provides information about the concentration of antibodies in the blood.

Antibody titers are often measured in relation to specific diseases or vaccinations. For example, after receiving a vaccine, healthcare professionals may measure antibody titers to ensure that the person has developed a sufficient immune response. High antibody titers generally indicate a robust immune response, while low titers may suggest a need for additional vaccinations or booster shots.

In summary, antibody titers are a way to quantify the strength of the immune response by measuring the concentration of specific antibodies in the blood.

107 subjects (median 78 (IQR 58.5-90.5, range 35-105) yo) were recruited, and factors associated with antibody titer after the third mRNA **COVID-19 vaccination** were analyzed between 49 elderly (age ≥ 80 , median 94 (IQR 86-97, range 80-105) yo) and 58 younger (≤ 79 , median 61 (IQR 46-71, range 35-79) yo) adults.

Among BMI categories, the underweight group in elderly adults had a lower antibody titer compared to the normal weight group ($p < 0.01$ after one, three, and five months). **Elderly** adults were less likely to maintain effective antibody titer ($\geq 4,160$ AU/ml) compared to younger adults; 76% vs 98%, $p < 0.001$ after one month, and 45% vs 78%, $p < 0.001$ after three months. Elderly adults who maintained effective antibody titer for five months had a higher BMI (22.9 kg/m² vs 20.1 kg/m², $p = 0.02$), and were less likely to have underweight BMI (0% vs 31%, $p = 0.02$) compared to the subjects who failed its maintenance.

These highlight the impact of nutritional status, and the deleterious effect of being underweight **BMI** on **antibody titer** and its maintenance among elderly adults following booster mRNA COVID-19 vaccine ¹⁾

¹⁾

Mori M, Doi T, Murata M, Moriyama Y, Akino K, Moriyama T, Maekawa T, Doi N. Impact of nutritional status on antibody titer after booster mRNA COVID-19 vaccine among elderly adults in Japan. J Infect Dis. 2023 Nov 14:jjad495. doi: 10.1093/infdis/jiad495. Epub ahead of print. PMID: 37962870.

From:
<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:
https://neurosurgerywiki.com/wiki/doku.php?id=antibody_titer

Last update: **2024/06/07 02:58**



