135 THE EFFECTS OF OBESITY AND VITAMIN D IN BODY RESPONSE TO HEPATITIS B VACCINE

Jalal Moludi,[1] Mohammad Alizadeh[2]. [1]*Nutrition Research Center, Tabriz University of Medical Sciences, Tabriz, Iran;* [2]*Nutrition Research Center, Faculty of Nutrition, Tabriz University of Medical Sciences, Tabriz, Iran.*

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Background and aims: Hepatitis B vaccination is the most successful way to prevent the virus infection. Serum concentration of vitamin D has recently been proposed as a novel predictor of response to antiviral treatment in chronic hepatitis infection. The main target of this paper was to review the recent knowledge regarding the association between obesity and vitamin D level and immune response to Hepatitis B vaccines.

Methods: This review was written by referring to research literature including 32 articles published from 200 to 2015 on PubMed, Google Scholar, and Scopus databases. Searches were undertake on the key phrases of Hepatitis B, Obesity(overweight), Hepatitis B vaccine, antibody titre,Vitamin D level and other similar keywords. References included a variety of research papers (descriptive and analytical) and intervention articles.

Results: In healthy patients, adequate hepatitis B surface antibody (HBsAb) titer is the most important for prevent hepatitis B. Secondly, obesity cased vitamin D insufficiency and immune system dysfunction. In patients with overweight, vitamin D deficiency is associated with a poor antibody formation upon hepatitis B vaccination, therefore hepatitis B vaccine maybe require booster doses at obese population should be considered.

Conclusion: this review revealed an association between vitamin D deficiency and poor body response to vaccination in obese patients. The reduced immune response of overweight patients to immunization can be harmful not only for the patient but also for the community. In conclusion, vitamin D levels measured previously starting the vaccination should be considered.