

Comparison of the effect of accelerated and classic vaccination schedules against Hepatitis B on the short-term production of protective antibody level: a meta-analysis study

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Abstract

Background: Hepatitis B is a common viral disease and one of the most common causes of cirrhosis and Hepatocellular Carcinoma (HCC). This disease is preventable via vaccination in most individuals. The aim of this study was to compare the accelerated and classic vaccination schedules against hepatitis B in the short-term production of protective antibody level.

Methods: A couple of scientific internet resources were searched to find the relevant studies. The abstracts of 156 studies and full texts of some of them were reviewed and finally, 19 articles relevant to the objective of the study were selected. From among the 19 articles remained, 11 articles with a score of 3 out of 5 (JADAD SCORE) were included as high quality studies.

Results: The antibody level of 10 mIU/ml or above was considered as positive vaccination response. According to the results of random effect model, no statistically significant difference was reported between the accelerated and conventional vaccination methods in terms of serum protection (OR=0.653, CI: 0.425-1.004). However, it seems that the accelerated method is less strong.

Conclusion: Although it seems accelerated vaccination method has less power, the difference has been trivial in most of the studies. Accelerated vaccination is recommended in situations where faster protective antibody level is needed.

Keywords: Hepatitis B, conventional vaccination method, accelerated vaccination method, meta-analysis

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