عنوان مقاله:

Elevated Levels of Anti-SARS-Cov۲ IgG Antibody in Health Care Workers in Hospitals From Hamadan Province, Iran:
A Prospective Study

محل انتشار:

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خلاصه مقاله:

Aim: Seroprevalence among health care workers (HCWs) has been estimated in different studies in various regions and countries. This study aimed to screen the immunoglobulin M (IgM) and IgG seroprevalences and to assess the durability of IgG seropositivity, as well as the incidence of subsequent severe acute respiratory syndrome coronavirus ۲ (SARS-CoV-۲) infection in a group of Iranian HCWs. Methods: This voluntary serological screening was prospectively performed on ۸۰۰ HCWs (۴۹۲ females and ۳۰۸ males) in Hamadan between November ۲۰۲۰ and February ۲۰۲۱. Anti-SARS-CoV-۲ IgG and IgM antibodies were assessed by the enzyme-linked immunosorbent assay method at two-time intervals. Results: Overall, ۲۴۳ out of ۸۰۰ (۳۰.۳۸%) and ۶۶ (۸.۲۵%) cases were IgG and IgM seropositive at their first antibody assessment, respectively. The male staff had a higher seroprevalence than females (۳۱.۴۹% vs. ۲۹.۶۷% for IgG, P = ۰.۵۹ and ۱۰.۳۹% vs. ۶.۹۱% for IgM, P = ۰.۰۸). Higher prevalences for both antibodies were found in the age group of ۳۰-۳۹.۹ years (P = ۰.۱۲ and P = ۰.۰۵, respectively). In the second antibody screening, ۸۱ (۵۶.۶%) cases were IgG seropositive. The mean titer of the first IgG antibody assessment in seropositive cases was lower than that of the second titer (۲.۹۵ ± ۲.۰۷ vs. ۵.۰۸ ± ۴.۰۱ cut-off index (COI) , P = ۱.۴×۱۰-۵). Moreover, the comparison of the first and second IgG titers among ۸۱ seropositive cases demonstrated a significantly increased level of anti-SARS-CoV-۲ antibody (۵.۰۸ ± ۴.۰۱ vs. ۳.۴۹ ± ۲.۴۱ COI, P = ۰.۰۰۲). Conclusions: Our findings revealed that the mean level of the anti-SARS-CoV-۲ IgG antibody was significantly increased in the seropositive individuals after ۲ months of follow-up.

کلمات کلیدی:

Seroprevalence, Antibody, IgG, SARS-CoV-۲

لینک ثابت مقاله در پایگاه سیویلیکا: