

INTISARI

Latar belakang: Infeksi virus Hepatitis B (HBV) adalah masalah kesehatan global dengan prevalensi 7,1% di Indonesia. Tenaga kesehatan merupakan kelompok risiko tinggi tertular virus Hepatitis B dengan prevalensi HBsAg positif adalah 2,56%. Program vaksinasi Hepatitis B mahasiswa kepaniteraan klinik telah rutin dilaksanakan satu kali tahapan vaksinasi dan belum pernah dilakukan evaluasi kadar anti Hbs pasca vaksinasi.

Tujuan : Mengevaluasi kadar anti HBs mahasiswa kepaniteraan klinik pasca setiap tahapan vaksinasi Hepatitis B serta menganalisis faktor – faktor yang berpengaruh.

Metode: Penelitian observasional prospektif longitudinal dengan subjek mahasiswa kepaniteraan klinik FKMK UGM periode Maret 2018. Kriteria inklusi adalah setuju berpartisipasi dengan menandatangani *informed consent*, HBsAg negatif dan anti HBs pra vaksinasi non reaktif. Kriteria eksklusi adalah subjek tidak hadir sama sekali dalam periode 3 bulan evaluasi pasca vaksinasi dasar. Data karakteristik subjek diperoleh melalui kuesioner, data klinis, dan pemeriksaan laboratorium. Hasil dianalisis secara deskriptif, uji beda proporsi menggunakan analisis *Chi-square*.

Hasil: Sejumlah 75 mahasiswa kepaniteraan klinik sesuai kriteria inklusi dan tidak ada subjek yang dieksklusi. Subjek tersebut terdiri atas 32% subjek laki-laki dan 68% subjek perempuan dengan median umur 22 tahun. Subjek hadir pada evaluasi-I, II, dan III berturut – turut adalah 71 (94,67%), 66 (88%), 21 (28%) subjek. Rerata anti HBs di antara subjek pasca evaluasi-I-II-III berturut-turut adalah $681 \pm 422,6$ IU/l; $810,10 \pm 340,88$ IU/l; $899,63 \pm 207,99$ IU/l ($p < 0,005$). Pada evaluasi keseluruhan terdapat 68 (90,67%) responder. Rerata Indeks Massa Tubuh (IMT) $25,71 \pm 2,74$ kg/m² lebih tinggi signifikan pada kelompok non responder ($p = 0,003$).

Simpulan: Rerata kadar anti HBs pasca vaksinasi-1, 2, dan 3 meningkat bermakna. Sejumlah 90,67% subjek menjadi responder pada analisis keseluruhan pasca vaksinasi. Indeks Massa Tubuh signifikan sebagai faktor yang berpengaruh pada pembentukan anti HBs.

Kata kunci: Hepatitis B, vaksinasi, anti HBs, *responder*, faktor pengaruh.

ABSTRACT

Background: Hepatitis B virus (HBV) infection is a global health problem with 7,1% prevalence in Indonesia. Health workers have the highest burden from exposure Hepatitis B virus. The average HBsAg prevalence was 2,56%. Hepatitis B vaccination program for medical students has been carried out routinely in one vaccination stage, but evaluation of anti-HBs titers after vaccination has never been done.

Objective: To evaluate the anti-HBs levels of medical students after each stage of Hepatitis B vaccination and analyzing the influencing factors

Method: A prospective longitudinal observational study. The subjects were medical students for March 2018, agreed to participate by signing an informed consent, previous HBsAg was negative and anti-HBs pre-vaccination was non-reactive. The exclusion criteria were students who did not return in 3-month evaluation after vaccination. Subject characteristic data were obtained through questionnaires, clinical data, and laboratory examinations. The results were analyzed descriptively and chi – square test was used to the test proportion.

Results: Overall, 75 medical students met the inclusion criteria and no subjects were excluded. The subject consists of 32% men and 68% women with a median age of 22 years. Subjects attending evaluation-1, II, and III were 71 (94,67%), 66 (88%), 21 (28%) subjects, respectively. The mean of anti-HBs post vaccination-I-II-III were respectively $681 \pm 422,6$ IU/l; $810,10 \pm 340,88$ IU/l; $899,63 \pm 207,99$ IU/l ($p < 0,05$). In the overall evaluation, there were 68 (90,67%) responders. The mean Body Mass Index (BMI) of $25,71 \pm 2,74$ kg/m² was significantly higher in the non responders ($p = 0,003$).

Conclusions: The mean levels of anti-HBs after vaccination-1, 2, and 3 increased significantly. Overall, 90,67% of subjects were responders in the post-vaccination analysis. Body Mass Index is significant as a factor influencing the formation of anti-HBs.

Keywords: Hepatitis B, vaccination, anti-HBs, responders, influencing factors.