Prevalence of Seromarkers of HBV and HCV in Health Care Personnel and Apparently Healthy Blood Donors

Pages with reference to book, From 100 To 100

Madam, With regards the study “Prevalence of HBV and HCV among Health care workers (HCW) and apparently healthy blood donors” published . in JPMA Vol 46;1996:152-154, I would like to submit following comments.

HCW are the members of general population. In addition to their own risk factors involves because of their health care profession, HCW runs the same risk as their counterparts in general population. Therefore, HCW may have highor equal prevalence ofHCV, HBV infection, but itis not possible to have low prevalence with. regard control, otherwise this observation i.e., low prevalence in HCW is bound to lead to the conclusion that health care profession, by some ways reduces the risk of I{BV and HCV infections, which is contrary to all established facts. This highprevalence in control population may occur when control population may not have properly matched and grouped according to age, sex, education and socio-economic conditions. It can also occur when selection biases occur in the study, which is not unconunon to see in the studies, where population is selected on voluntary basis.

Prevalence of anti-HBc appeared in the study and control population around 28% and 36% respectively, which is statistically insignificant. This observation is quite possible to occur. However, prevalence of HBsAg appears quite high in control group. Interestingly 60% (3/5) HCW and 53% (7/13) control appeared HBs Ag positive without anti-HBc total, which is unlikely to occur in healthy population[1]. Anti-HBc markers available in country are Anti-HBc 1gM and total which includes both 1gM and IgG antibodies. The total anti-HBc marker not only shows past (as it is mentioned in the paper), but also ongoing and acute infection as well. HBsAg appears positive without total HBc only in early seroconversion state which is not common to observe inblood donors population who are excluded from the donation on history of recent exposure. These discrepancies in the result may occur when samples are tested on highly sensitive diagnostic test kits but results are not checkedby repeat testing and confirmed by confinnatory/supplementary tests.

HBeAg isamarkerofinfectivity, whereHBsAg isfound in high abundance. Detection of HBe Ag in HBsAg negative specimen should not occur[1]. In the study very highpercentage (i.e., 60% (3/5) HCW and 57% (4/7) of control) appeared positive for HBcAg without HBs Ag. It indicates more false positivity (technical reasons as it is mentioned in the paper) than any rare thing like mutations.

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References

1. Hollinger, B.F. Specific and surrogate screening tests for hepatitis. In: Insalaco, S.J. and Menitove. J.E.. eds. transfusion transmitted viruses: Epidemiology and Pathology. Arlington, V.A.: American Association of Blood Banks, 1987. pp. 69.86.