Poster Presentation

Hepatitis B Virus infection is not a risk factor in liver fluke-associated cholangiocarcinoma: a comparative study of P53 mutation between groups with Opisthorchis viverrini and HBV infection

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Objective: To investigation the role of HBV infection as a risk factor in liver fluke-associated cholangiocarcinoma

In Northeast (NE) Thailand, people are exposed to numerous risk factors for cholangiocarcinoma, such as: infestation with the liver fluke, Opisthorchis viverrini, hepatitis B virus (HBV) and hepatitis C virus (HCV) infection, and nitrosamine contamination from traditional fermented dishes. The meta-analysis of Asian cholangiocarcinoma revealed that the relative risks of infection with liver fluke, HBV and HCV were 4.8, 2.6, and 1.8, respectively. Among Thai people the prevalence of HBsAg, and anti- HCV were 8-10% and 0.89-5%, respectively.

Methods: We applied immunohistochemistry to study P53 mutation in 40 cholangiocarcinoma cases from NE Thailand. The study cases comprising, 17/40 were positive for O. viverrini Ab; 19/40 were positive for both O. viverrini Ab and HBsAb (with one HCV coinfection case) ; 3/40 was positive HBsAb alone and 1/40 was negative for O. viverrini Ab, HBsAb and anti-HCV. The immunohistochemical staining was considered as positive if 10% or more of the tumor cells were stained. Statistical analysis has been performed applying the chi-square test.

Results: The overall prevalence of P53 mutation was 35% (14/40 cases), of this 7/17 (41.2%) belonged to a group with O. viverrini infection alone, 7/19 (36.8%) were cases with O. viverrini and HBV infection (with one HCV coinfection case), but there was no significant difference in the prevalence of p53 mutation between the two groups. No mutation was detected in the 3 cases positive for HBsAb alone and a case with unremarkable serum.

Conclusion: Our key finding, that infection with HBV did not increase the prevalence of P53 mutation among cholangiocarcinoma cases, were in concordance with a previous serology and genotypic distribution study of HBV and HCV infection among 295 cholangiocarcinoma patients from NE Thailand.