**Supplementary Table 1. Representative clinical studies on risk of liver steatosis in patients with chronic HBV infection**

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| **Study populationSample size (n)** | **diagnosis method of liver steatosis** | **Prevalence of liver steatosis** | **Hazard ratio/OR of developing NAFLD in patients with CHB (95% CI)** | **Factors positively associated with liver steatosis** | **Factors negatively associated with liver steatosis** | **Factors with no association with liver steatosis** | **Main results** | **Reference** |
| Meta-analysisCHB (n=4100) | liver biopsy | CHB:29.6% | 0.55 (0.45-0.67）(compares to CHC) | male gender, BMI, obesity, DM, glycemia, TG, TC, moderate alcohol consumption | HBV DNA load | aminotransferases, HBeAg, genotypes or hepatic histology, necroinflammation or fibrosis | decreased risk of hepatic steatosis in HBV versus HCV patients | Machado et al., 2011 |
| Taiwan, China，health check-up, CHB(HBsAg+) (n=3642)Control(HBsAg-) (n=29797) | ultrasonography | CHB:38.9%Overall:43.9% | NA | BMI, age, WC, SBP, FBG, TC, ALT,platelet counts | HBsAg | NA | CHB Patients were inversely associated with fatty liver disease than the general population, especially in older and obese patients | Cheng et al., 2013 |
| South Korea，Cohort study，health check-up，CHB(HBsAg+) (n=3926)Control(HBsAg-) (n=79413) | ultrasonography | CHB:40.6/1000 person-yearsControl:43.5/1000 person-years | 0.83 (0.73-0.94) | NA | NA | NA | HBsAg seropositivity is associated with lower risk of developing NAFLD | Joo et al., 2017 |
| China,case-control study，CHB(HBsAg+) (n=3212) | liver biopsy | CHB:17.3% | NA | male gender, age | HBV DNA load, intrahepatic HBsAg and HBcAg, HBeAg | NA | Hepatic steatosis in HBV infected patients is negatively associated with intrahepatic expression of HBsAg | Wang et al., 2014 |
| Hong Kong, China，case-control study,CHB(HBsAg+) (n=1202)Steatosis(n=601) No Steatosis(n=601) | controlled attenuation parameter (CAP) (measured by transient elastography) | CHB:56.6% (1548 CHB patients) | 0.859 (0.743-0.994) | central obesity, MS, BMI, platelet count | HBV DNA load | NA | Increasing hepatic steatosis was independently associated with lower serum HBV DNA levels | Hui et al., 2017 |
| China,case-control study,CHB(HBsAg+,HBeAg-) (n=204)Steatosis(n=106) No Steatosis(n=98) | liver biopsy | NA | NA | FI | NA | NA | HBeAg-negative chronic hepatitis B patients with hepatic steatosis had significantly lower HBV DNA load | Zheng et al., 2010 |
| China,case-control study,controls(n=2357)newly diagnosed NAFLD(n=631) | ultrasonography | NA | current HBV infection0.64 (0.42-0.95) | NA | NA | age, sex, BMI, current smoking, diabetes, ALT, FBG, TG | current but not past HBV infection is associated with a decreased risk of NAFLD in the Chinese population | Zhong et al., 2018 |
| China，case-control study,CHB(HBsAg+) (n=1915) | liver biopsy | CHB:14% | NA | BMI, TG, ApoB, Uric acid, FBG | NA | HBV DNA load, HBeAg | Hepatic steatosis is associated with metabolic factors not viral ones | Shi et al., 2008 |
| China,Cohort study，health check-up, female,CHB(HBsAg+) (n=152)Control(HBsAg-) (n=1714) | ultrasonography | CHB:10.5％Control:17％ | 0.656 (0.379-1.134) | NA | NA | NA | the incidence of fatty liver disease in HBV‑infected subjects was not significantly different from in non‑HBV‑infected subjects | Wang et al., 2019 |
| Thailand,case-control study,CHB(HBsAg+, HBV DNA level >2,000 IU/ml) (n=256) | liver biopsy | CHB:38% | NA | obese, BMI,hypertriglyceridaemia | HDL | HBeAg, genotype | Hepatic steatosis in HBV infected patients is associated with metabolic syndrome but not viral factor | Charatcharoenwitthaya P et al., 2017 |
| China，Cohort study，CHB(HBsAg+) (n=2393) | liver biopsy | CHB:63.89/1000 person-years | NA | BMI, DM | NA | HBV DNA load, HBeAg,age, gender | HBV carriers had an increased risk of NAFLD for those overweight and obese, and with concurrent type 2 diabetes mellitus, and in the subgroup of participants with concurrent type 2 diabetes mellitus, HBV DNA levels were negatively associated with the development of NAFLD | Zhu et al., 2019 |
| Taiwan, China，health check-up, CHB(HBsAg+) (n=50)Control(HBsAg-) (n=457) | ultrasonography | CHB:56% | NA | TG, BMI, HOMA-IR | NA | HBsAg, age, gender,ALT, TC, FBG | Chronic HBV infection seems not to be associated with hepatic steatosis in HBV carriers | Wang et al., 2008 |
| Iran,case-control study,CHB(HBsAg+) (n=132) | liver biopsy | CHB:42.4% | NA | TG | NA | age, sex, HBeAg, HBV DNA load, TC, AST, ALT | metabolic host factors rather than viral factors responsible for the presence of hepatic steatosis in HBV infected patients | Minakari M et al., 2009 |
| India,case-control study,CHB(HBsAg+)(n=350) | liver biopsy | CHB:33.7% | NA | age, gender, BMI, TG, TC, FI | HBV DNA load | NA | Hepatic steatosis is associated with host metabolic factors, especially serum triglyceride levels, whereas HBV DNA level negatively correlated with hepatic steatosis | Rastogi A et al., 2011 |
| China,Cohort study,children(0-18 years)CHB(n=560)CHB+NAFLD(n=62)NAFLD(n=143) | liver biopsy | NA | NA | BMI, Globulin, Prealbumin | Creatinine, HBV DNA load | NA | an inverse association between CHB and NAFLD reciprocally existed in pediatric population | Wang L et al., 2019 |