

# **Chronic hepatitis B virus infection is associated with a poorer prognosis in diffuse large B-cell lymphoma: a meta-analysis and systemic review**

**Running title: HBV and poorer prognosis in DLBCL**

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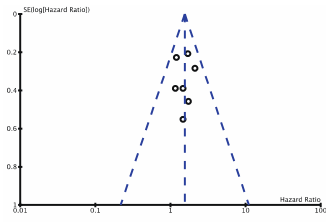
## **Supplementary Material**

**Legends for figure**

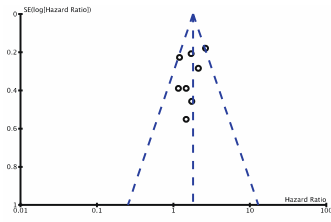
**Figure S1. Funnel plots for each comparison in the meta-analysis.**

**Figure S1**

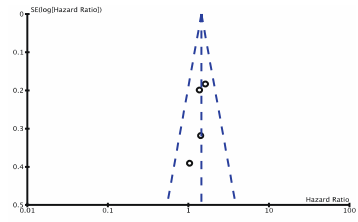
**A. Two-year OS**



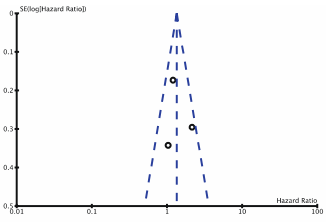
**B. Five-year OS**



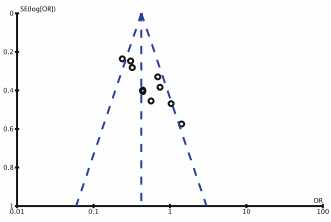
**C. Two-year PFS**



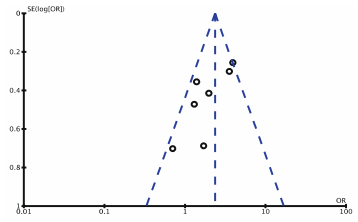
**D. Five-year PFS**



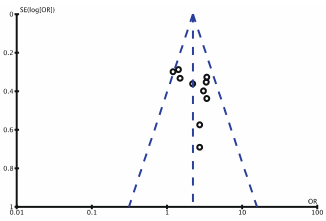
**E. CR**



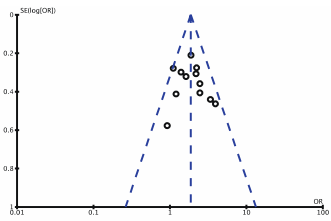
**F. PD**



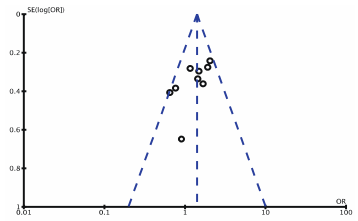
**G. Over 60-years-old**



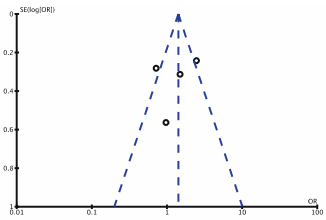
**H. Stage 3 or 4**



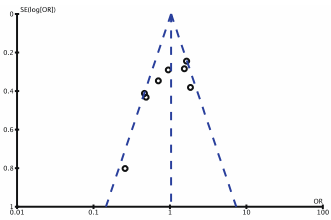
**I. Elevated LDH**



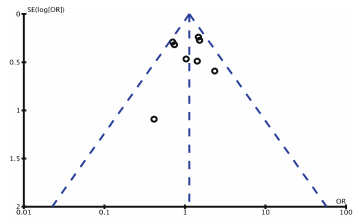
**J. B symptoms**



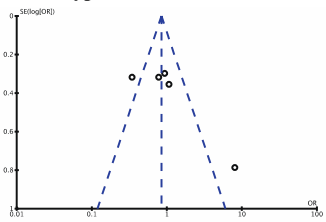
**K. IPI score**



**L. Extral-nodal metastasis**



**M. Subtype**



**Table S1. Main characteristics of studies included in the meta-analysis.**

Study	Year	Country (hep B prevalence)	Study Design	Number of cases	Number of controls	Treatment of the DLBCL	Treatment for HBV infection	Hep B assessment (Yes/No)	DLBCL assessment	Assessment indexes	Matching and adjustment
Deng	2015	China (High)	cohort	81	506	All patients received a standard CHOP or R-CHOP as the primary treatment. Rituximab was not used on patients with HBV DNA level greater than $1 \times 10^5$ IU/ml.	Prophylactic antiviral therapy was used on HBsAg positive patients and HBsAg negative, anti-HBc positive patients up to 6 months after oncology treatment ends, HBV-DNA level.	Yes (HBeAg, HBeAb and HBV DNA were also detected)	Pathology confirmed all cases	age, stage of disease, bulky disease, B symptoms, number and site of extra nodal disease, IPI score and LDH level, hepatic dysfunction before and during chemotherapy, response to primary chemotherapy, OS, PFS	Patients were excluded from the study if they were HIV positive or anti-HCV positive.
Feng	2016	China (High)	case-control	36	124	Not mentioned	Not mentioned	Yes (HBeAg, HBeAb were also detected)	Pathology confirmed all cases	age, stage of disease, number and site of extra nodal disease, IPI score, LDH level, hepatic dysfunction before and during chemotherapy	No patients were HIV positive
Guo	2015	China (High)	cohort	52	83	All patients received first-line treatment regimen—R-CHOP/CHOP/CHOP-like and most of them received MabThera. Parts of them received radiotherapy.	All 21 patients with active HBV infection received antiviral therapy (lamivudine and entecavir) for at least 6 months after the end of chemotherapy.	Yes (HBeAg, HBeAb and HBV DNA were also detected)	Pathology confirmed all cases	age, stage of disease, IPI score and LDH level, Hans typing	No patients were HIV positive

Huang	2012	China (High)	case-control	38	270	All patients received first-line treatment regimen: R-CHOP/CHOP/CHOP-like.	Not mentioned	Yes (HBeAg, HBeAb were also detected)	Pathology confirmed all cases	age, stage of disease, number and site of extra nodal disease, IPI score, LDH level, hepatic dysfunction before and during chemotherapy, OS, PFS	No patients were HIV positive
Law	2015	Hong Kong (High)	case-control	16	65	Stage I or II: four courses of CHOP(b) or R-CHOP(c)+regional radiation therapy(RT) to the involved area; Stage III or IV or early stage with bulky diseases:8 courses of CHOP or R-CHOP. RT was given to patients with bulky tumors.	HBSAg positive patients received lamivudine prophylaxis, (from the beginning of chemotherapy to 6 months after completion of chemotherapy)	Yes	Pathology confirmed all cases	age, stage of disease, bone marrow involvement with lymphoma, bulky disease, B symptoms, number and site of extra nodal disease, IPI score and LDH level, hepatic dysfunction before and during chemotherapy, OS	Patients were excluded from the study if they were HIV positive or anti-HCV positive.
Shan	2016	China (High)	case-control	76	159	All patients received more than 4 circles CHOP or R-CHOP treatment	Not mentioned	Yes (HBeAg, HBeAb were also detected)	Pathology confirmed all cases	age, stage of disease, bone marrow involvement with lymphoma, bulky disease, B symptoms, number and site of extra nodal disease, IPI score and LDH level, hepatic dysfunction before and during chemotherapy, Han typing, OS, PFS	No patients were HIV positive

Wang	2016	China (High)	case-control	52	200	Not mentioned	Not mentioned	Yes (HBeAg, HBeAb were also detected)	Pathology confirmed all cases	age, stage of disease, bone marrow involvement with lymphoma, bulky disease, B symptoms, number and site of extra nodal disease, IPI score and LDH level, hepatic dysfunction before and during chemotherapy, OS, PFS	Not mentioned
Wang	2018	China (High)	case-control	120	388	Standard chemotherapy based on the first-line regimen of CHOP or R-CHOP	Not mentioned	Yes (HBeAg, HBeAb and HBV DNA were also detected)	Pathology confirmed all cases	age, stage of disease, CR and PD rate after chemotherapy	Not mentioned
Wei	2015	China (High)	case-control	33	117	Not mentioned	Not mentioned	Yes (HBeAg, HBeAb were also detected)	Pathology confirmed all cases	age, stage of disease, bone marrow involvement with lymphoma, bulky disease, B symptoms, number and site of extra nodal disease, IPI score. ECOG and LDH level, hepatic dysfunction before and during chemotherapy	Patients were excluded from the study if they were HIV positive or anti-HCV positive.
Wei	2014	China (High)	case-control	59	235	All patients received 6-8 cycles of first-line CHOP-or R-CHOP-like regimens.	Not mentioned	Yes	Pathology confirmed all cases	age, stage of disease, bone marrow involvement with lymphoma, number and site of extra nodal disease, IPI score and LDH level, hepatic dysfunction before and during chemotherapy	Patients with HCV or HIV infection and primary central nervous system lymphoma cases were excluded in this study.

Zheng	2014	China (High)	cohort	56	328	All patients received at least four cycles of first-line CHOP-or R-CHOP-like regimens and had at least a follow-up of 3 months.	No treatment on HBV infection.	Yes	Pathology confirmed all cases	age, stage of disease, number and site of extra nodal disease, Hans typing	Patients with HCV or HIV infection and primary central nervous system lymphoma cases were excluded in this study.
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