Rituximab plus cyclophosphamide and dexamethasone *versus* bortezomib plus cyclophosphamide and dexamethasone in newly diagnosed symptomatic Waldenström macroglobulinemia: a randomized controlled trial

Authors

Wenjie Xiong,^{1,2*} Rui Lyu,^{1,2*} Ying Yu,^{1,2} Tingyu Wang,^{1,2} Yuting Yan,^{1,2} Yi Wang,^{1,2} Wei Liu,^{1,2} Gang An,^{1,2} Shuhui Deng,^{1,2} Yan Xu,^{1,2} Weiwei Sui,^{1,2} Wenyang Huang,^{1,2} Dehui Zou,^{1,2} Jianxiang Wang,^{1,2} Lugui Qiu^{1,2#} and Shuhua Yi^{1,2#}

¹State Key Laboratory of Experimental Hematology, National Clinical Research Center for Blood Diseases, Haihe Laboratory of Cell Ecosystem, Institute of Hematology & Blood Diseases Hospital, Chinese Academy of Medical Sciences & Peking Union Medical College, Peking and ²Tianjin Institutes of Health Science, Tianjin, China

*WX and RL contributed equally as first authors. #SY and LQ contributed equally as senior authors.

Correspondence: L. QIU - qiulg@ihcams.ac.cn S. YI - yishuhua@ihcams.ac.cn https://doi.org/10.3324/haematol.2023.284588

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Inclusion criteria	Exclusion criteria	
(1) The gender of the patient is not limited, the	(1) Malignant tumors other than B-NHL	
age is ≥ 18 years old;	(including active central nervous system	
(2) Must meet the diagnostic criteria of WM;	lymphoma) have been diagnosed or treated in	
(3) The patient is an untreated or untreated	the past year;	
patient with initial treatment. The specific	(2) There is clinical evidence that large cell	
conditions are as follows:	lymphoma transformation occurs;	
a) combined chemotherapy without CHOP,	(3) Non-lymphoma-related liver and kidney	
COP, etc.	dysfunction: alanine aminotransferase (ALT)>	
b) no treatment with fludarabine	three times the upper limit of normal value,	
c) application of Chlorambucil or	aspartate aminotransferase (AST)> three times	
cyclophosphamide for less than 3 weeks (alone	the upper limit of normal value, total bilirubin	
or in combination with adrenal	(TBIL)> upper limit of normal value 2 Times,	
glucocorticoids)	serum creatinine clearance rate < 30ml / min;	
d) Interferon application does not exceed 6	(4) Other serious medical conditions may affect	
months	the study (such as uncontrolled diabetes,	
e) The above treatment did not reach the	gastric ulcer, other serious cardiopulmonary	
therapeutic response (PR or CR)	diseases, etc.). The judgment decision belongs	
f) If the above treatment is applied, it is	to the researcher;	
necessary to stop treatment for 2 weeks before	(5) A known history of infection with human	
entering the group to start treatment.	immunodeficiency virus (HIV) or active	
(4) indications for the treatment of indolent	hepatitis B virus (HBV) infection, or any	
lymphoma, including (at least one of the	uncontrolled active systemic infection	
following conditions):	requiring intravenous antibiotics.	
a) hyperviscosity;	Note: Active HBV infection is defined as: a.	
b) symptomatic neuropathy;	HBV DNA quantification \geq 2000 IU / ml; b.	
c) amyloidosis;	ALT \geq 2 times the normal upper limit; c.	
d) cold agglutinin disease; cryoglobulinemia;	Exclude hepatitis due to the disease itself,	

Table S1: The key inclusion and exclusion criteria for patients in the study

e) disease-related cytopenia (Hb < 100 g/L,	drugs and other reasons, three conditions must	
PLT < 100 x 109/L);	be met at the same time. If the patient is active	
f) huge lymph nodes;	HBV infection at the time of initial diagnosis,	
g) those with systemic symptoms: persistent	the conversion to inactive HBV infection after	
for two weeks/recurrent fever (above 38°C)	anti-HBV treatment can be included in the	
and caused by non-infection, or night sweats	study under the premise of adequate anti-HBV	
and/or weight loss within 6 months >10%;	treatment.	
h) rapid progression of the disease, such as a	(6) Central nervous system dysfunction with	
lymph node that increases by more than 50%	clinical manifestations;	
within 2 months, and/or an absolute doubling	(7) The patient has undergone major surgery	
time of peripheral blood lymphocytes <6	(excluding lymph node biopsy) in the past 30	
months, and/or a rapid decrease in hemoglobin	days;	
or platelets caused by non-autoimmune causes;	(8) Women of childbearing age who have not	
i) There may be evidence of disease	used contraception during pregnancy or	
conversion.	lactation;	
(5) The patient is expected to have a survival	(9) allergic to the drug used;	
period of \geq 3 months;		
Study protocol		

The original study protocol (NCT02844322) in Chinese language is available upon written request to the corresponding author at <u>yishuhua@ihcams.ac.cn</u>

groups	The treatment after progression	The reason of death
RCD		
P1	Clinical trial (BGB3111)	
P2	Ibrutinib	
P3	No treatment	
P4	-	gastric cancer
P5	Ibrutinib	
BCD		
P1	RCD	
P2	Ibrutnib	progression
P3	Clinical trial (BGB3111)	progression
P4	RCD-ibrutnib	progression
P5	Ibrutnib	
P6	Ibrutnib-CART	progression
P7	Chlorambucil+pre	
P8	RCD	
Р9	Clinical trial	
P10	-	Heart-related diseases
P11	No treatment	progression
P12	Ibrutinib	
P13	Ibrutinib	

Table S2: The treatment after progression and the reason of death

Figure S1: The cellular components of bone marrow in RCD and BCD group before and after treatment in patients who achieved PR or VGPR. A. The blue cell represent abnormal B lymphocytes and the purple cell represent abnormal plasma cells. B. The comparation of the percentage of abnormal B lymphocytes before and after treatment in the RCD and BCD group. C. The comparation of the percentage of abnormal plasma cells before and after treatment in the RCD and BCD group.



