Supplementary Methods & Results

Clinicopathological work-up

Diagnosis was confirmed by two experienced hematopathologists (AF & HM) in accordance with the latest edition of the WHO classification of tumors of the hematopoietic and lymphoid tissues[1]. Clinical information was collected from the original files, and data concerning performance status (Eastern Cooperative Oncology Group [ECOG]), disease extent, treatment modalities, response rate, relapse pattern, cause of death and survival were recorded, as were initial serum levels of lactate dehydrogenase (LDH). Extent of disease was routinely evaluated according to the Cotswold modifications of the Ann Arbor classification[2]. All samples were collected as part of standard clinical care, and all studies were approved by the Ethics Commission at the University of Lübeck and are in accordance with the Declaration of Helsinki (18-356). Patients gave written informed consent regarding routine diagnostic and academic assessment of their biopsy specimen as well as transfer of their clinical data.

Review of Mitelman Database

The Mitelman Database has been reviewed in order to identify cases of aggressive B-cell lymphomas harboring cytogenetic aberrations on chromosome 11. Reviewing process included all numerical aberrations of 11q-gains or losses (trisomy or monosomy) from all topographies using the search terms ‘B-cell lymphoma associated with hemophagocytic syndrome’, ‘Burkitt-lymphoma/leukemia’, ‘diffuse large B-cell lymphoma’, ‘mediastinal large B-cell lymphoma’, ‘post-transplant lymphoproliferative disorder’, ‘primary effusion lymphoma’ and ‘plasma cell neoplasm’. There was no explicit search term for ‘high grade B-cell lymphoma’ available. High-grade B-cell lymphomas have been detected by the identification of 8q24 (*MYC*), 18q21 (*BCL2*) and/or 3q27 (*BCL6*) rearrangements deposited among the abovementioned search terms. The composition of relevant cases is depicted in **Supplementary Table 1**. To the best of our knowledge, we reviewed published datasets for different entities of aggressive B-cell

lymphomas exhibiting numerical aberrations on chromosome 11. At this point it cannot be ruled out that there exist additional published cases of aggressive B-cell lymphoma others than BLL which can be associated with 11q aberrations not included in the Mitelman catalogue.

Cytogenetic assessment

In total, 55 cases have been reviewed for cytogenetic analysis. There were eight dropouts due to insufficient sample quality or quantity. Cases in which sufficient biopsy-material was available and those excluded from further analysis were comparable regarding clinical features and characteristics. Consecutively, samples of 47 DLBCL/HGBL cases proceeded to further cytogenetic assessment (**Supplementary Tables 3.1 & 3.2**).

Wherever fresh biopsy material was available, cytogenetic analyses on R-banded metaphases and FISH with break-apart probes for *MYC*-, *IGH*-, *BCL2*-, and *BCL6*-genes as well as *IGH-MYC* fusion were performed (all Abbott-Vysis, Park, IL). Additionally, a custom FISH-assay for detection of BBL-11q-gains/losses in combination with a centromere 11 probe was used [3].

There were no cytogenetic alterations on chromosome 11 in 35 of 47 cases (74.5%). Trisomy or tetrasomy of chromosome 11 were found in six cases (12.7%; trisomy n=5 and tetrasomy n=1). In one case an 11q-gain pattern could be detected (2.1%) as well as a monosomy 11 in another case (2.1%). Decisively, a BLL-11q pattern could be found in four cases (8.5%) (**Supplementary Table 2**).

Supplementary Table 1

Supplementary Table 1. Review of Mitelman Database in order to identify cases of aggressive B-cell lymphomas harboring numeric aberrations on chromosome 11.

High-Grade B-cell Lymphoma						
Sex	**Age**	**Additional cytogenetic aberrations**	**Year**	**Case No.**	**Author**	**Journal**
M	45	3q27 (*BCL6*), 8q24 (*MYC*) and 18q21 (*BCL2*) rearrangement	2007	1	Bertrand *et al.*[4]	Leukemia
Karyotype		55,XY,+X,**t(3;14;18)(q27;q32;q21)**,**del(3)(q26q27)**,+der(3)t(1;3)(q21;q27),+5,+6,**t(8;9)(q24;p13),+11**,+12,+13,+16,der(17)t(1;17)(q21;p13),+20				
F	66	8q24 (*MYC*) and 18q21 (*BCL2*) rearrangement	2007	12	Bertrand *et al.*[4]	Leukemia
Karyotype		82,XX,–X,add(X)(p22),–1,add(1)(p21),add(1)(p31),add(1)(p32),–2,–2,add(3)(p21),add(4)(p13),del(4)(q28),–5,–6,–6,add(6)(p12)x2,**add(8)(q24),**add(9)(p21)x2,add(10)(p12),**–11**,–13,add(14)(q32)x2,–15,–15,–17,del(17)(p11),–18,**add(18)(q21)**,–19,–20,–21,–22,+7mar				
M	49	3q27 (*BCL6*) and 8q24 (*MYC*) rearrangement	2011	1	Shi *et al.*[5]	Hum Pathol
Karyotype		76~79,der(X)t(X;2)(q21;p23)x2,–Y,–Y,–1,dic(1;14)(p36;p11),del(2)(p23)x2,**del(3)(q27)x2**,add(4)(q21),-**5**,add(5)(p13),add(6)(q21),del(6)(q21),add(7)(q11)x2,–8,**add(8)(q24)x2**,der(8;13)(q10;q10),–9,–10,**–11**,add(12)(q13),del(12)(p11),der(12)t(2;12)(p23;q24),+13,–14,–14,–15,add(15)(p11),–17,–17,+19,add(19)(p13)x2,–22,–22,–22,+1~2mar				
F	-	8q24 (*MYC*) and 18q21 (*BCL2*) rearrangement	2004	8328	Cook *et al.*[6]	Am J Clin Pathol
Karyotype		74~80,XX,add(6)(q27)x2,+add(7)(q36),+8,**t(8;22)(q24;q11),**del(9)(p22),**+11**,–14,**t(14;18)(q32;q21)**,–15,+21,+add(21)(q22),add(22)(q13),+2~6mar				
M	-	3q27 (*BCL6*) and 8q24 (*MYC*) rearrangement	2002	11	Itoyama *et al.*[7]	GCC
Karyotype		47,XY,del(2)(q21q31),**t(3;22)(q27;q11)**,del(6)(q13q15),**der(8)t(2;8)(q21;q24),+11**,der(20)t(1;20)(q21;q13)				
F	42	8q24 (*MYC*) and 18q21 (*BCL2*) rearrangement	2007	9	Johnson *et al.*[8]	Blood
Karyotype		76~80,XX,r(X)(p?q?), **1?**,del(2)(p?1q?1),del(3)(p21),del(6)(q12),+7,+der(7)t(1;7)(?p13;?p22)t(7;16)(q?;?q11),+r(7)(p?q?),**t(8;9)(q24;p13)x3**,+10,**+11**,+der(12)t(2;12)(?;q24),**t(14;18)(q32;q21)x2**,–15,–16,–16,**+der(18)t(14;18)**,+20,+20,+21				
F	65	8q24 (*MYC*) and 18q21 (*BCL2*) rearrangement	2009	12	Johnson *et al.*[9]	Blood
Karyotype		65~71,XX,–X,der(1)t(1;3)(p36;q27)x2,der(1)t(1;8)(q41;q22),–2,**der(3)t(3;8)(?p25;q24)x2**,+7,der(8)del(8)(p21)del(8)(q23)x2,ider(8)(q10)t(3;8)(p21;q23),–9,**+11**,+12,+13,**t(14;18)(q32;q21),**del(17)(p11),der(22)t(2;22)(?;q13)x2				
F	-	8q24 (*MYC*) and 18q21 (*BCL2*) rearrangement	2008	14TR	Johnson *et al.*[10]	GCC
Karyotype		65~71,XX,–X,**der(1)t(1;8)(p36;?q24)x2**,der(1)t(1;8)(q41;q22),?2,der(3)t(3;8)(p24;?q23)x2,+7,der(8)del(8)(p21)del(8)(q23)x2,+ider(8)(q10)t(3;8)(p26;q23),-9,**+11**,+12,+13,**t(14;18)(q32;q21),**del(17)(p11),der(22)t(2;22)(?;q13)x2				
F	50	8q24 (*MYC*) and 18q21 (*BCL2*) rearrangement	2007	4	Le Gouill *et al.*[11]	Haematologica
Karyotype		46,X,–X,add(3)(p21),del(6)(q21q27),+7,**t(8;9)(q24;p13),+11,t(14;18)(q32;q21)**,–15,add(17)(p11),+der(?)t(?;2)(?;q12)/47,idem,+mar				
M	54	8q24 (*MYC*) and 18q21 (*BCL2*) rearrangement	2006	2	Kanungo *et al.*[12]	Mod Pathol
Karyotype		50,XY,**t(2;8)(p11;q24)**,t(3;5)(p12;q12),+7,+8,inv(9)(p11q12),**+11**,**t(14;18)(q32;q21)**,add(17)(p11),+19				
M	64	8q24 (*MYC*) and 18q21 (*BCL2*) rearrangement	2006	3	Kanungo *et al.*[12]	Mod Pathol
Karyotype		51~53,XY,+X,del(2)(q32),add(4)(p16),+5,**t(8;22)(q24;q11),+11**,+12,**t(14;18)(q32;q21)**,–15,+22,+2~3mar				
M	33	8q24 (*MYC*) and 18q21 (*BCL2*) rearrangement	2013	3	Havelange *et al.*[13]	GCC
Karyotype		53,XY,+X,+del(5)(q3?3),der(6)t(4;6)(?;q25~27),+7,**t(8;14)(q24;q32),+11**,+12,+12,der(13)del(13)(q31)i(13)(q10),der(15)t(1;15)(?q12;q2?5)t(1;4),+20/53,idem,**der(18)t(2;18)(?;q21)**				
M	-	3q27 (*BCL6*), 8q24 (*MYC*) and 18q21 (*BCL2*) rearrangement	2018	3	Huang *et al.*[14]	Mod Pathol
Karyotype		73~82,XXY,+X,+3,**t(3;4)(q27;q22)x2**,+4,+5,-6,–9,del(9)(p13),del(10)(q24q26)x2,**+11**,+12,add(12)(p13)x2,–13,**der(13)ins(13;8)(q32;q24q24)add(8)(q24)**,–14,**t(14;18)(q32;q21),**del(16)(p11)x2,+17,add(17)(p12)x2,–18,–19,add(20)(q13),+21,+22,+7~10mar				
M	-	8q24 (*MYC*) and 18q21 (*BCL2*) rearrangement	1999	13	Macpherson *et al.*[15]	JCO
Karyotype		49~50,XY,+add(7)(q22),–8,**der(8)t(8;22)(q24;q11)**,del(9)(p22),**+11**,–13,+14,**t(14;18)(q32;q21)**,–15,–20,+21,+22,+2~3mar				
F	71	8q24 (*MYC*) and 18q21 (*BCL2*) rearrangement	2018	77	Mizuno *et al.*[16]	Cancer Med
Karyotype		48,XX,–4,+7,**t(8;22)(q24;q11),**inv(9)(p12q13)c**,+11,t(14;18)(q32;q21),**add(17)(p11),add(21)(p11),+mar/48,idem,–add(17),+mar				
M	-	3q27 (*BCL6*) and 18q21 (*BCL2*) rearrangement	2000	11	Roumier *et al.* [17]	Hematol J
Karyotype		55,XY,**del(3)(q26q27),+der(3)t(1;3)(q21;q27),t(3;14;18)(q27;q32;q21)**,+5,+6,**t(8;9)(q24;p12),+11**,+12,+13,+16,der(17)t(1;17)(q21;p13),+20				
M	66	8q24 (*MYC*) and 18q21 (*BCL2*) rearrangement	2010	33	Seegmiller *et al.*[18]	Mod Pathol
Karyotype		51,XY,+X,der(1)add(1)(p36)del(1)(q42q44),der(1)del(1)(p36p32)ins(1;?)(q21;?),add(2)(p11),der(2)t(2;7)(p21;q11),del(3)(p13p25),add(5)(q31),**+der(5)t(5;14)(p14;q24)t(14;18)(q32;q21),+der(6)t(6;18)(q27;q21)t(14;18)(q32;q21)**,+7,**add(8)(q24),**ins(8;?)(q22;?),+add(10)(q22**),+11**,–13,der(13)t(13;14)(q32;q32),–14,**der(14)t(8;14)(q24;q32)**,der(16)t(7;16)(q11;p13),del(17)(p11p13),der(18)t(7;18)(q11;p11),+der(?)t(?;14)(?;q32),+mar				
F	65	8q24 (*MYC*) and 18q21 (*BCL2*) rearrangement	1983	73	Bloomfield *et al.*[19]	Cancer Res
Karyotype		82,XXX,–X,del(1)(p22),?del(2)(q32),t(2;4)(q32;q35),–3,t(3;6)(p25;q21),–4,–5,t(5;6)(q15;q27),del(6)(q21),–8,**?t(8;15)(q24;q24)**,–9,–10,**–11**,–12,del(12)(p11),–14,**+t(14;18)(q32;q21)**,–16,–17,–18,–19,–22,+3mar				
M	-	8q24 (*MYC*) and 18q21 (*BCL2*) rearrangement	1988	26	Chenevix-Trench *et al.*[20]	MOTP
Karyotype		60,XY,-X,+Y,–1,–2,–4,–8,**add(8)(q24)**,–9,del(9)(p13),–10,**–11**,–12,–12,+t(12;17)(q?;q?)x2,–13,**t(14;18)(q32;q21)**,–15,–16,–17,add(17)(q25),–22,+mar				
M	-	3q27 (*BCL6*), 8q24 (*MYC*) and 18q21 (*BCL2*) rearrangement	2018	6	Huang *et al.*[14]	Mod Pathol
Karyotype		84~87,XXYY,+X,add(1)(q21),–2,+3,+3,+3,**der(3)t(3;8)(q27;q24)**,del(3)(q11)x2,del(3)(q21)x2,4,6,add(7)(q36)x2,–8,**ider(8)(q10)t(3;8)**,–10,–10,**–11,t(14;18)(q32;q21)x2**,–15,–17,–17,+18,+18,–19,–19,–19,–22,–22,+2~4mar				
M	68	3q27 (*BCL6*), 8q24 (*MYC*), 11q13 (*CCND1*) and 18q21 (*BCL2*) rearrangement	2011	10	Bacher *et al.*[21]	GCC
Karyotype		51,XX,+i(1)(q10),**t(2;3)(p12;q27)**,+5,**t(8;14)(q24;q32)**,del(9)(p21p22),**+11**,**der(11)t(11;14)(q13;q32)t(14;18)(q32;q21)**,+12,**der(14)t(11;14)(q13;q32)**,**der(18)t(14;18)(q32;q21)**,+20				
F	57	*BCL6*- and *MYC*-Break	1999	2	Lin *et al.*[22]	Am J Clin Pathol

Karyotype		51,XX,+X,**add(3)(q27),**t(6;14)(p21;q32),**t(8;14)(q24;q32)**,**+11**,+12,+13,–19,+22,+22,+4mar/50,idem,–9				
M	67	8q24 (*MYC*) and 18q21 (*BCL2*) rearrangement	2011	1	Tanaka *et al.*[23]	J Clin Exp Hematop
Karyotype		54,XY,+X,+1,+7,+7,+8,**t(8;22)(q24;q11)x2,+11**,+13,del(13)(q?)x2,add(14)(q22),**der(14)add(14)(p11)t(14;18)(q32;q21)**,**der(18)t(14;18)x2?**,+20				
F, female; M, male; No., number. GCC, Genes Chromosomes Cancer; MOTP, Medical Oncology Tumor Pharmacotherapy						

Diffuse large B-cell lymphoma						
Sex	**Age**	**Additional cytogenetic aberrations**	**Year**	**Case No.**	**Author**	**Journal**
F	67	8q24 (*MYC*) rearrangement	1994	1	Gladstone *et al.*[24]	CGC
Karyotype		51~56,XX,+X,+del(1)(q21),+2,+5,+6,+7,**+del(8)(q24)**,+9,+10,**+11**,+13,+14,+17,+20,–21,der(21)t(1;21)(q21;p11),–22,–22,+2mar				
F	47	8q24 (*MYC*) rearrangement	1989	1	Park et al.	GCC
Karyotype		77,XXX,+X,+1,+1,add(1)(p13)x3,add(3)(p12),+add(3)(p21),–4,–6,t(6;7)(p21;q36),+der(7),**t(8;14)(q24;q11)x2**,**-9**,**+11**,+12,+13,der(13)t(1;13)(p13;q32)x2,+14,–15,+der(16)t(16;17)(p11;q11),–17,+18,+20,+21,–22				
M	53	8q24 (*MYC*) rearrangement	1980	10	Reeves *et al.*[25]	Hum Genet
Karyotype		51,XY,der(6)t(1;6)(p22;q13~15),**der(8)t(8;16)(q24;p11)**,**+11**,+12,der(13)t(2;13)(q21;q14),del(15)(q22),+16,+20,+mar				
M	83	8q24 (*MYC*) rearrangement	2006	3	Bosga-Bouwer *et al.*[26]	GCC
Karyotype		75~99,XXYY,+Y,der(1)t(1;**11**)(q32;**q13**)x2,–2,–2,–5,–5,add(6)(q?15),add(6)(q?21),add(7)(q22)x2,i(7)(q10),–8,**add(8)(q24)x2**,–9,–9,–9,–9,–10,**–11,–11**,**del(11)(q13q21)**,–12,–13,–14,–15,–16,–16,–17,–17,–17,–17,dup(18)(q12q23)x2,–19,–19,–20,–22,+der(?)t(?;5)(?;q13)x2,+der(?)t(?;17)(?;q21)x2,+13mar				
M	-	8q24 (*MYC*) rearrangement	2007	125	Aamot *et al.*[27]	JCRCO
Karyotype		79~81,XXXY,add(1),–2,del(2)(p13),–3,–3,–4,–8,–8,**der(8)t(8;11)(q24;q13)**,add(9)(p24),–10,–10,–**11**,–14,t(14;18),–15,–16,add(19)(q13),–22,+4~10mar				
M	-	8q24 (*MYC*) rearrangement	2004	3987	Cook *et al.*[6]	Am J Clin Pathol
Karyotype		84~87,XXYY,i(1)(q10),–2,del(3)(p11p21),–4,inv(4)(p12q21),add(6)(q23)x2,**add(8)(q24),**add(9)(p22)x2**,–11,–11**,–13,t(13;14)(p10;q10),–15,–16,add(16)(p12),add(17)(q23)x1~2,i(17)(q10),der(19)t(**11**;19)(**q13**;q13),add(20)(p13),–21,–22,–22,add(22)(p13),+mar				
M	64	8q24 (*MYC*) rearrangement	2013	76	Havelange *et al.*[13]	GCC
Karyotype		45,XY,der(5)t(5;15)(q11;?),del(13)(q31q33),der(13;20)(q10;q10),del(17)(p11p12),der(20;22)(p10;q10)/82,XYY,–X,der(X)t(X;2;3)(?q21;?;p12),der(X)t(X;3)(p11-21;?),der(1)hsr(1)t(1;1)(p?22;q?21),der(2)t(2;5)(?;q11),-3,der(3)t(3;4),–4,der(4)t(2;4;5),?del(5)(q31q33),**t(8;22)(q24;q11)**,**der(8)t(8;22)(q24;q11)**,der(9)t(X;9;9;2)(?q13;?p13;?q22;?),**–11**,–12,–13,–14,–15,–16,–18,–19,+21,–22				
M	57	8q24 (*MYC*) rearrangement	2010	34	Seegmiller *et al.*[18]	Mod Pathol
Karyotype		80~85,XY,–X,–Y,del(1)(p32p36),–2,ins(2;?)(q31;?)x2,–4,–4,–5,add(5)(p15),add(6)(q13),add(6)(q23),ins(6;?)(q23;?),add(7)(q11),**t(8;14)(q24;q32)x2**,add(9)(q22)x2,–10,–10,–**11**,–12,–13,–15,+16,add(16)(p11),add(16)(p13),–18,–18,–20,–21,–22,–22,+7~13mar/75~87,idem,add(19)(p13)				
F, female; M, male; No., number. CGC, Cancer Genetics Cytogenetics; GCC, Genes Chromosomes Cancer; JCRCO, Journal of Cancer Research and Clinical Oncology						

Mediastinal B-cell lymphoma						
Sex	**Age**	**Additional cytogenetic aberrations**	**Year**	**Case No.**	**Author**	**Journal**
M	-	8q24 (*MYC*) rearrangement	2002	3	Palanisamy *et al.*[28]	GCC
Karyotype		91,XX,–Y,–Y,–1,t(3;14)(p14;q32),+6,i(6)(p10)x2,del(7)(q22),**add(8)(q24),–11,**+add(12)(p11),–13,–14,–15,add(15)(p11),add(15)(q26),+17,+18,+20,+mar				
F, female; M, male; No., number. GCC, Genes Chromosomes Cancer						

Burkitt Lymphoma / Leukemia						
Sex	**Age**	**Additional cytogenetic aberrations**	**Year**	**Case No.**	**Author**	**Journal**
M	18	8q24 (*MYC*) rearrangement	2003	56	Kumari *et al.*[29]	CGC
Karyotype		46,XY,+7,**t(8;14)(q24;q32)**,–9,t(9;13)(p12;q12),**–11**,–13,+2mar				
M	11	8q24 (*MYC*) rearrangement	2003	61	Kumari et al.[29]	CGC
Karyotype		45,X,–Y,**t(8;14)(q24;q32)**,**–11**,+22				
M	5	8q24 (*MYC*) rearrangement	1988	3	Cervantes *et al.*[30]	CGC
Karyotype		81,XX,der(Y)t(Y;1)(q12;q25)x2,+Y,–1,+2,–3,–5,–8,–8,**t(8;14)(q24;q32)**,–9,–9,–10,–10,**+11**,–12,–14,–14,add(14)(q?),+?i(17)(q10),–18,–18,–20,–21,–21				
F	75	8q24 (*MYC*) rearrangement	2011	5	Choi *et al.*[31]	J Korean Med Sci
Karyotype		50~51,XX,add(6)(q27),+7,+8,**t(8;14)(q24;q32)**,**+11**,+12,+20,+mar				
F	76	8q24 (*MYC*) and 18q21 (*BCL2*) rearrangement	2006	9	D'Achille *et al.*[32]	CGC
Karyotype		49,XX,+X,+i(1)(q10),+2,**t(8;22)(q24;q11)**,**t(14;18)(q32;q21)**/53~57,idem,+X,+5,+7,**+der(8)t(8;22)**,**+11**,**+der(14)t(14;18)**,+20,+22				
F	73	8q24 (*MYC*) rearrangement	2013	41	Havelange *et al.*[13]	GCC
Karyotype		46,X,der(X)del(X)(p?)del(X)(q?),der(1)t(X;1)(?;p?13),der(6)t(6;9)(q12;?),**t(8;14)(q24;q32)**,**+11**,–15				
M	64	8q24 (*MYC*) rearrangement	2013	19	Lundin *et al.*[33]	GCC
Karyotype		47,XY,+X,**t(8;14)(q24;q32)**/48,idem,+7/48,idem,+1,der(1;2)(q10;q10)/52,idem,+i(1)(q10),+4,+6,**+11**/48,idem,+der(1;7)(q10;p10)				
F	83	*MYC*-Break	2002	9	Velangi *et al.*[33]	J Clin Pathol
Karyotype		55~56,XX,+X,+X,+add(1)(p10),del(1)(q10),+7,**t(8;14)(q24;q32)**,**+11**,del(16)(q?),+21,+21				
-	-	8q24 (*MYC*) rearrangement	1976	8	Zech *et al.*[34]	Int J Cancer
Karyotype		48~53,X?,+X,+2,+3,**t(8;14)(q24;q32)**,+9,+10,**+11**,+12,+20				
F, female; M, male; No., number. CGC, Cancer Genetics Cytogenetics; GCC, Genes Chromosomes Cancer						

Supplementary Table 2

Supplementary Table 1. Clinical courses of aggressive B-cell lymphoma cases with 11q-deletion identified by FISH.

Characteristics	Case #1	Case #2	Case #3	Case #4
Diagnosis	B-cell lymphoma with Burkitt-like features	High-grade B-cell lymphoma with *MYC* and *BCL2* rearrangement	B-cell lymphoma with Burkitt-like features	B-cell lymphoma with Burkitt-like features
Age	34	73	34	71
Sex	male	male	male	male
Risk stratification				
Ann-Arbor-stage	IVB	IIA	IA	IIIB
R-IPI	4	3	1	3
Extranodal sites	2	1	0	2
ECOG-PS	2	2	1	2
LDH (U/l)	1200	327	124	206
Hans-Classifier	GCB	GCB	Non-GCB	GCB
BCL2 (IHC)	positive	positive	negative	negative
BCL6 (IHC)	n.a.	positive	negative	negative
FISH	11q24.3~qter deletion without 11q-proximal gain	11q gain/loss pattern, *MYC* and *BCL2* *rearrangements*	11q gain/loss pattern	11q gain/loss pattern
Particularities	HIV-infection	n.a.	n.a.	n.a.
Treatment modalities				
1st line treatment	MATRix	R-CHOP	R-CHOP	R-CHOP
Best response	Progressive disease	Complete remission	Complete remission	Partial remission
2nd line treatment	-	-	-	R-bendamustine
Best response	-	-	-	Progressive disease
Survival				
PFS (months)	2	50	29	29
OS (months)	3	50	29	56
Death event	yes	no	no	yes

ECOG-PS, Eastern Cooperative Oncology Group- Performance Status; FISH, fluorescence in situ hybridization; GCB, germinal center B-cell; HIV, human immunodeficiency virus; IHC, immunohistochemistry; LDH, lactate dehydrogenase; n.a., not applicable, OS, overall survival; PFS, progression free survival.

Supplementary Table 3

Supplementary Table 3.1. Composition of FISH-studies on alterations on chromosome 11 in HGBL-patients.

High-grade B-cell lymphoma (DHL/THL)					
ID	**Age**	**Sex**	**Samples**	**FISH ISCN**	**Finding**
1	72	m	1	nuc ish(**D11Z1,RP11-414G21,ETS1**)**x4**	Tetrasomy 11
2	73	m	2	nuc ish(D11Z1x2,**RP11-414G21x3,ETS1x1**)	11q gain/loss pattern *
				nuc ish(D11Z1x2,**RP11-414G21x3,ETS1x1**)	
3	76	f	3	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
				nuc ish(D11Z1,RP11-414G21,ETS1)x2	
				nuc ish(D11Z1,RP11-414G21,ETS1)x2	
4	89	f	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
5	80	m	1	nuc ish(**D11Z1,RP11-414G21,ETS1**)x**1**	Monosomy 11
6	73	f	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
7	45	f	1	nuc ish(RP11-414G21,ETS1)x2	Normal
8	62	f	1	nuc ish(**D11Z1,RP11-414G21,ETS1)x3**	Trisomy 11
9	52	m	1	nuc ish(D11Z1,RP11-414G21)x2	Normal (*ETS1* hybridization unsuccessful)
10	60	f	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
11	75	f	2	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
				nuc ish(D11Z1,RP11-414G21,ETS1)x2	
12	67	m	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
13	74	f	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
14	76	m	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
16	66	m	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
18	82	f	1	nuc ish(RP11-414G21,ETS1)x2	Normal (D11Z1 hybridization unsuccessful)
20	54	f	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
22	42	m	1	nuc ish(RP11-414G21,ETS1)x2	Normal (D11Z1 hybridization unsuccessful)
24	35	f	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
27	58	m	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
28	88	f	1	nuc ish(RP11-414G21,ETS1)x2	Normal (D11Z1 hybridization unsuccessful)
32	56	f	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
39	69	f	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
40	75	f	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
42	52	f	2	nuc ish 11 (RP11-414G21x2)	Normal
				nuc ish(D11Z1,RP11-414G21,ETS1)x2	
43	79	m	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
44	67	m	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
45	70	m	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
46	64	m	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal

BL, Burkitt-like; DHL, double-hit lymphoma; f, female; FISH, fluorescence in-situ hybridization; m, male; THL, triple-hit lymphoma.
*Case #2

Supplementary Table 3.2. Composition of FISH-studies on alterations on chromosome 11 in patients with triple negative aggressive B-cell lymphoma.

Aggressive B-cell lymphoma (triple negative)					
ID	**Age**	**Sex**	**Samples**	**FISH ISCN**	**Finding**
15	71	m	2	nuc ish(**RP11-414G21x3,ETS1x1**)	11q gain/loss pattern * (D11Z1 hybridization unsuccessful)
				nuc ish(**RP11-414G21x3,ETS1x1**)	
17	68	f	1	nuc ish(**D11Z1,RP11-414G21,ETS1**)**x3**	Trisomy 11
19	63	m	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
21	52	m	1	nuc ish(**RP11-414G21,ETS1**)**x3**	Trisomy 11 (D11Z1 hybridization unsuccessful)
23	37	m	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
25	27	m	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
26	69	f	1	nuc ish(**D11Z1,RP11-414G21,ETS1**)**x3**	Trisomy 11
29	74	f	1	nuc ish(**RP11-414G21,ETS1**)**x3**	Trisomy 11 (D11Z1 hybridization unsuccessful)
30	81	f	1	nuc ish(RP11-414G21,ETS1)x2	Normal. No information for centromere 11
31	57	m	3	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
				nuc ish(D11Z1x2,**RP11-414G21x3,ETS1x3**)	Trisomy 11 (partial)
				nuc ish(**RP11-414G21,ETS1**)**x3**	
33	34	m	1	nuc ish(D11Z1x2,**RP11-414G21x3,ETS1x1**)	11q gain/loss pattern **
34	18	f	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
35	73	m	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
36	65	m	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
37	57	f	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
38	87	f	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
41	53	m	1	nuc ish(D11Z1,RP11-414G21,ETS1)x2	Normal
47	34	m	1	nuc ish 11 (CEP11x2,RP11-414G21x2,**ETS1x1**)	11q24.3~qter deletion without 11q-proximal gain ***

BL, Burkitt-like; f, female; m, male; FISH, fluorescence in-situ hybridization.

*Case #4; **Case #3; ***Case #1

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