

## Multiple sclerosis patients

Pat.	Age at diagnosis PML	underlying disease	immunosuppressive therapy	cell count	cytology	lymphocytes (%)	monocytes (%)	others (%)	OCB	Qalbumin	CSF protein (mg/l)	CSF lactate (mmol/l)	CSF JCV PCR (c/ml)	additional findings
1	43	RRMS	natalizumab	1	inconspicuous	60	40		type 4	10.79	841	1.38	1080	
2	42	RRMS	natalizumab, since 2010	2	inconspicuous	80	20		type 2	2.94	296	1.49	400	
3	32	RRMS	natalizumab, since 07/2011	1	inconspicuous	80	20		type 2	5.04	331	1.56	700	
4	55	RRMS	natalizumab	1	inconspicuous	80	20		type 2	6.12	396	1.94	800	
5	36	RRMS	natalizumab	2	activated	50	41	9	type 2	3.63	305	1.52	n.a.	
6	32	RRMS	natalizumab	1	granulocytic	0		100	n.d.	n.d.	229	1.27	n.a.	
7	40	RRMS	natalizumab	1	lymphocytic	100			n.d.	n.d.	300	1.79	n.a.	
8	33	RRMS	natalizumab	9	mainly lymphocytic	76			type 2	n.d.	940	1.32	n.a.	
9	46	RRMS	natalizumab	4	mainly granulocytic	33		67	n.d.	n.d.	561	2.05	n.a.	
10	38	RRMS	natalizumab	1	lymphocytic	100			n.d.	n.d.	291	1.32	n.a.	
11	30	RRMS	natalizumab	1	lymphocytic/granulocytic	50		50	n.d.	n.d.	791	1.35	n.a.	
12	45	RRMS	natalizumab	3	mainly lymphocytic	87,5			type 2	n.d.	536	1.99	n.a.	
13	46	RRMS	natalizumab	2	mainly lymphocytic	66			n.d.	n.d.	378	1.78	n.d.	
14	34	RRMS	natalizumab	1	lymphocytic	100			n.d.	n.d.	259	1.00	3000	
15	40	RRMS	natalizumab	7	mainly lymphocytic	90			n.d.	n.d.	515	1.28	n.a.	
16	43	RRMS	natalizumab	1	lymphocytic	100			n.d.	n.d.	952	1.19	n.a.	
17	41	RRMS	natalizumab	1	lymphocytic	100			type 2	n.d.	417	1.60	negative	
18	35	RRMS	natalizumab	1	lymphocytic	100			n.d.	n.d.	345	1.12	positive	
19	38	RRMS	natalizumab	2	lymphocytic	100			type 2	n.d.	446	1.09	negative	
20	52	RRMS	natalizumab	1	lymphocytic	100			n.d.	n.d.	340	1.78	193.830	
21	27	RRMS	natalizumab	1	lymphocytic	100			type 1	n.d.	259	0.99	positive	
22	42	RRMS	natalizumab	3	lymphocytic	75			n.d.	n.d.	289	1.20	2170	
23	19	RRMS	natalizumab	6	lymphocytic	100			n.d.	n.d.	366	1.13	positive	

24	34	RRMS	natalizumab	2	lymphocytic	100			type 2	n.d.	364	1.68	positive
25	46	RRMS	natalizumab	15	n.d.	n.d.			Typ 1	n.d.	460	2.5	positive
26	60	RRMS	natalizumab	3	mainly lymphocytic	80			n.d.	n.d.	465	1.04	
27	39	RRMS	natalizumab	1	lymphocytic	100			n.d.	n.d.	463	1.51	
28	51	RRMS	natalizumab	1	lymphocytic	100			n.d.	n.d.	226	1.47	
29	36	RRMS	natalizumab	1	lymphocytic	100			type 2	4.18	266	1.46	
30	46	RRMS	natalizumab	1	lymphocytic	100			n.d.	n.d.	235	1.34	
31	34	RRMS	natalizumab	1	lymphocytic	100			type 1	4.54	298	1.46	
32	42	RRMS	natalizumab	2	mainly lymphocytic	57			n.d.	5.43	399	1.36	
33	62	RRMS	natalizumab	1	lymphocytic	100			type 3	10.46	613	1.61	
34	54	RRMS	natalizumab	n.d.	n.d.	n.d.			n.d.	n.d.	n.d.	n.d.	
35	52	RRMS	natalizumab	1	lymphocytic	100			type 2	7.38	414	1.18	
36	40	RRMS	natalizumab	2	lymphocytic	100			type 1	7.9	590	1.6	
37	48	RRMS	natalizumab	1	lymphocytic	100			n.d.	6.24	514	1.2	
38	33	RRMS	natalizumab	7	mainly lymphocytic	95			type 2	5	427	1.58	
39	47	RRMS	natalizumab	n.d.	n.d.	n.d.			n.d.	n.d.	n.d.	n.d.	
40	33	RRMS	natalizumab	1	lymphocytic	100			n.d.	6.5	375	1.15	
41	49	RRMS	natalizumab	4	lymphocytic	100			type 3	8.5	596	1.4	
42	46	RRMS		31	lymphocytic	100			n.d.	10.7	770	1.6	
43	48	RRMS	azathioprine; natalizumab (5 y, 9 m)	26	lymphocytic	94	6		type 2	5	443	2	
44	37	RRMS	natalizumab (5 y)	0	lymphocytic	71	7		type 2	4.9	428	1.54	
45	33	RRMS	natalizumab (4.5 y)	1	lymphomonocytic	49	27		n.d.	3.1	265	1.65	
46	45	RRMS	natalizumab (100 infusions)	0	lymphomonocytic	49	23	9	type 4	16.3	1330	1.76	
47	33	RRMS	natalizumab (26 infusions)	0	lymphocytic	65	8	13	type 1	1.9	233	2	
48	25	RRMS	natalizumab (4 y, 50 infusions)	0	lymphocytic	69	22	4	type 2	8.7	755	2.19	
49	52	RRMS	natalizumab	0		0	0		type 2	6.3	440	1.5	

50	48	RRMS	natalizumab (36 infusions)	1		0	100			6.9	510	1.7	
51	44	RRMS	natalizumab (2007-2012)										
52	50	RRMS	natalizumab (26 infusions)	1		100	0		type 2	5.1	380	1.7	
53	41	RRMS	natalizumab (2009-2015)	0		0	0			7.7	550	1.8	
54	50	RRMS	Avonex, natalizumab	1		0	100		type 2	8	415	2.6	

## HIV patients

Pat.	Age at diagnosis PML	underlyin g disease	immunosuppre ssive therapy	cell count	cytology	lymph ocytes (%)	monoc tes (%)	other s (%)	OCB	Qalbum in	CSF protei n (mg/l)	CSF lactate (mmol/ l)	CSF JCV PCR (c/ml)	additional findings
1	31	HIV, Hodg kin lymp homa	chemotherap y (BEACOPP)	33	activated	100	0		type 3	13.45	1168	2.31	1080	
2	47	HIV	none	2	inconspic uous	85	10	5	n.a.	6.76	442	1.62	400	
3	50	HIV	none	1	inconspic uous	90	10		type 3	9.45	487	1.66	700	
4	57	HIV	none	25	activated	80	17	3	type 3a	21.24	1017	2.08	800	
5	43	NHL, HIV	n.a.	10	slightly activated	75	25		type 2	6.2	513	n.d.	n.a.	
6	37	HIV	none	34	activated	n.a.	n.a.		type 4	15.6	1040	1.84	n.a.	
7	n.a.	HIV	none	n.a.	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	
8	n.a.	HIV	none	n.a.	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	
9	39	HIV	none	1	inconspic uous	n.a.	n.a.		type 2	6	402	1.83	n.a.	
10	36	HIV	none	1	inconspic uous	n.a.	n.a.		n.a.	14.69	800	n.a.	n.a.	
11	73	HIV	none	1	n.a.	n.a.	n.a.		type 3	25.1	1076	2.64	n.a.	
12	40	HIV	none	3	slightly activated	n.a.	n.a.			5.29	410	1.7	n.a.	
13	28	HIV	none	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	histologica l diagnostic confirmati on
14	62	HIV	none	6	activated	90	10		type 4	12.4	851	n.a.	3000	
15	53	HIV	none	1	n.a.	n.a.	n.a.			2.81	239	n.a.	n.a.	
16	40	HIV	none	2	n.d.	n.d.	n.d.		type 2	11.8	602	n.a.	n.a.	
17	49	HIV	none	13	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	negati ve	histologica l diagnostic confirmati on

18	46	HIV	none	2.3	n.a.	n.a.	n.a.		type 4	5.2	566	1.88	positive
19	47	HIV	none	7	activated	95	5		type 3	14.38	737	1.43	negative
20	51	HIV		1	n.d.	n.d.	n.d.		type 1	7.3	623	1.74	193.830
21	42	HIV		1	lymphocytic	78	2	1	n.d.	16.5	1260	1.42	positive
22	40	HIV		4	lymphocytic	51	8	9	type 1	8.2	630	1.9	2170
23	41	HIV		0	lymphocytic	79	2	10	type 2	5.5	698	1.42	positive
24	48	HIV	-	34				100	type 3	11.3	1040	1.9	positive
25	54	HIV	-	1		0	100			10.2	570	1.5	positive

### Patients with hematological malignancies (lymphoma group)

Pat.	Age at diagnosis PML	underlying disease	immunosuppressive therapy	cell count	cytology	lymphocytes (%)	monocytes (%)	others (%)	OCB	Qalbumin	CSF protein (mg/l)	CSF lactate (mmol/l)	CSF JCV PCR (c/ml)	additional findings
1	77	NHL	rituximab	3	inconspicuous	75	25		type 4	6.03	369	n.a.	200.000	
2	69	NHL	rituximab, bendamustine	n.a.	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	2890	
3	55	CLL	rituximab	7	activated	89	11		type 4	10.02	742	1.93	500	
4	73	NHL	rituximab	1	inconspicuous	80	20		type 2	2.69	301	1.4	negative	
5	77	B-CLL	rituximab	8	inconspicuous	90	10		type 1	4.65	374	1.88	250	
6	61	NHL	n.a.	4	slightly activated	90	10		type 4	9.1	563	1.62	n.a.	
7	54	multiple myeloma	multiple chemotherapy (cyclophosphamide, bendamustine, and others), 5x autologous PBSCT	1	inconspicuous	n.a.	n.a.		type 4	19.59	820	1.73	<180	
8	63	T-LGL-leukemia	MTX	1	slightly activated	80	20		type 3	6.49	440	1.92	203	
9	69	NHL	rituximab, bendamustine	3	slightly activated	78	22		type 2a	4.18	329		90.000	
10	73	NHL	mitoxantrone, melphalan, prednisolone	8	slightly activated	44	56		type 3	21.6	773	1.73	negative	histological diagnostic confirmation
11	77	NHL	rituximab, bendamustine 07-11/2019	5	activated	35	65		type 4	5.81	411	1.77	< 500	
12	69	multiple myelo		6		0	100			20.1	1030	2.8	positive	

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13	69	T-NHL	CHOP-21 (6x),DHAP (2x)	3		0	100		type 4	6.2	370	1.5	negative
14	70	NHL	rituximab, bendamustine	1		0	100			15.7	800	1,9	20.00 0.000
15	73	CLL	Multiple chemotherapy, Pembrolizumab, Rituximab	0	lymphocytic	78	10	8	type 1	6.6	520	1.97	positive
16	75	CLL	chemotherapy	0		28	16	9	type 1	5.6	360	1.62	11.65 0
17	62	CLL	chemotherapy (R-Benda)	3	lymphocytic	75	6	8	type 2	6	500	n.a.	> 10 Mio
18	39	DLBCL	plasmapheresis	1	lymphocytic	71	15	13	type 1	7.1	610	2.11	1150
19	24	AML	immunoglobulins	14	lymphocytic	97	1	2	type 4	8	760	1.57	15

### Transplant patients

Pat.	Age at diagnosis PML	underlying disease	immunosuppressive therapy	cell count	cytology	lymphocytes (%)	monocytes (%)	others (%)	OCB	Qalbumin	CSF protein (mg/l)	CSF lactate (mmol/l)	CSF JCV PCR (c/ml)	additional findings
1	65	kidney transplant	tacrolimus	8	activated	75	25		type 3	7.47	410	1.35	500	
2	72	liver transplant	MMF, tacrolimus	1	inconspicuous	n.a.	n.a.		type 1	10.6	750	1.73	negative	histological diagnostic confirmation
3	50	twofold liver transplant, kidney transplant	ciclosporin, MMF	1	inconspicuous	60	40		type 4	3.6	320	1.37	400	
4	54	lung transplant; Hodgkin lymphoma	rituximab, tacrolimus, MMF, ciclosporin	9	activated	76	24		type 2	8.72	578	1.75	19.00 0	

### Others

Pat.	Age at diagnosis PML	underlying disease	immunosuppressive therapy	cell count	cytology	lymphocytes (%)	monocytes (%)	others (%)	OCB	Qalbumin	CSF protein (mg/l)	CSF lactate (mmol/l)	CSF JCV PCR (c/ml)	additional findings
1	77	bronchial carcinoma	unknown chemotherapy	3	lymphocytic	70	30		type 4	6.27	311	n.a.	100.0 00	
2	68	unknown	none	22	activated	80	14	6	type 2	7.8	574	1.93	1000	
3	50	sarcoidosis	none	4	lytic cells	n.a.	n.a.		type 2	n.a.	440	1.61	n.a.	histological diagnostic confirmation
4	81	unknown	none	1	inconspicuous	60	40		type 4	4.68	340	1.57	11.00 0	

5	36	CVID	none	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	histological diagnostic confirmation
6	52	microscopic polyangiitis	cyclophosphamide (6 cycles), rituximab 05/2014- 09/2017	2	inconspicuous	48	52	type 4	10.24	720	1.71	negative		