

Supplementary table 1

Abbreviations: 5-aminosalicylates (5-ASA), budesonide (BUD), corticosteroids (GCS), methotrexate (MTX), 6-mercaptopurine (6-MP), azathioprine (AZA), antibody (Ab.), anti-TNF responder (R), anti-TNF non-responder (NR)

Figure 1 patient information

ID	Age	Gender	Disease	Montreal classification	Age at diagnosis	Disease duration [years]	Concomitant medical treatment						Anti-TNF Ab.	Prior anti-TNF [SES-CD]	During anti-TNF [SES-CD]	Anti-TNF	Non-response
							5-ASA	BUD	GCS	MTX	6-MP	AZA					
1	61	f	CD	A2L3+L4B2	26	35			X				Adalimumab	6	4	responder	-
2	27	f	CD	A2L3B1	25	3							Adalimumab	15	2	responder	-
3	41	f	CD	A2L2+L4B1	35	7			X			X	Adalimumab	11	4	responder	-
4	31	f	CD	A2L2B1	22	10						X	Adalimumab	10	2	responder	-
5	26	m	CD	A1L3B1	15	11	X		x				Adalimumab	8	0	responder	-
6	52	f	CD	A3L2B1p	51	2			X			X	Adalimumab	17	2	responder	-
7	62	m	CD	A3L1B2	44	19							Adalimumab	13	4	responder	-
8	76	m	CD	A3L3B2p	52	24						X	Adalimumab	8	0	responder	-
9	54	f	CD	A3L3B1	44	11				X		X	Adalimumab	6	7	non-responder	secondary
10	33	f	CD	A1L3+L4B1	15	19							Adalimumab	8	6	non-responder	primary
11	25	m	CD	A1L1+L4B1	16	9						X	Adalimumab	5	10	non-responder	primary
12	41	f	CD	A2L3B2p	29	13			X				Adalimumab	16	6	non-responder	primary
13	52	m	CD	A3L3+L4B2p	46	7							Adalimumab	8	21	non-responder	secondary
14	50	m	CD	A3L3B2	49	1						X	Adalimumab	6	5	non-responder	secondary
15	46	m	CD	A2L3B1	37	9		X			X		Adalimumab	12	20	non-responder	secondary
16	22	m	CD	A2L3B2p	19	3			X				Adalimumab	8	11	non-responder	secondary
17	43	m	CD	A2L3B2p	30	13		X				X	Adalimumab	7	9	non-responder	primary
18	27	m	CD	A1L1B2	16	11							Adalimumab	8	7	non-responder	primary
19	47	m	CD	A2L2B2p	26	21	X						Adalimumab	10	13	non-responder	primary

Figure 2 patient information

ID	Age	Gender	Disease	Montreal classification	Age at diagnosis	Disease duration [years]	Concomitant medical treatment						Anti-TNF Ab.	Anti-TNF treatment [months]	During anti-TNF [SES-CD]	Anti-TNF	Non-response
							5-ASA	BUD	GCS	MTX	6-MP	AZA					
20	43	f	CD	A2L2B1p	39	4							Adalimumab	24	3	responder	-
21	24	m	CD	A1L2B1	13	11	X	X					Infliximab	10	4	responder	-
22	28	f	CD	A2L3B1p	25	3							Infliximab	12	3	responder	-
23	46	f	CD	A2L3+L4B3	27	20							Adalimumab	16	9	non-responder	primary
15	47	m	CD	A2L3B1	37	10					X		Infliximab	14	17	non-responder	primary
24	19	m	CD	A1L3B2	13	7					X		Adalimumab	20	26	non-responder	primary

Figure 2 statistics

Analysis	R	NR	p-value (R vs. NR)
Age [years]	31.67 ± 10.02	37.33 ± 15.89	0.62
Gender (f/m) [%]	66.66 / 33.33	33.33 / 66.66	-
Age at diagnosis	25.67 ± 13.01	25.67 ± 12.06	0.99
Disease Duration [years]	6.00 ± 4.35	12.33 ± 6.08	0.24
5-ASA [%]	33.33	0.00	-
BUD [%]	33.33	66.66	-
GCS [%]	0.00	0.00	-
MTX [%]	0.00	0.00	-
6-MP [%]	0.00	0.00	-
AZA [%]	0.00	66.66	-
Anti-TNF Ab. (Infliximab/Adalimumab) [%]	66.66 / 33.33	33.33 / 66.66	-
Duration anti-TNF treatment [month]	15.33 ± 7.57	16.67 ± 3.05	0.79
During anti-TNF therapy [SES-CD]	3.33 ± 0.57	17.33 ± 8.50	0.04
Non-response (primary / secondary) [%]	-	100.00 / 0.00	-

Figure 3 patient information

ID	Age	Gender	Disease	Montreal classification	Age at diagnosis	Disease duration [years]	Concomitant medical treatment						Anti-TNF Ab.	Anti-TNF treatment [months]	Prior anti-TNF [SES-CD]	During anti-TNF [SES-CD]	Anti-TNF	Non-response
							5-ASA	BUD	GCS	MTX	6-MP	AZA						
25	18	m	CD	A1L3L1	16	2						Infliximab	5	8	2	responder	-	
22	28	f	CD	A2L1B2	25	5						Infliximab	12	3	0	responder	-	
26	29	m	CD	A2L3B2	24	5						Infliximab	3	7	2	responder	-	
14	51	m	CD	A3L3B2	49	2						Adalimumab	8	6	0	responder	-	
1	62	f	CD	A2L3+L4B2	26	36			X			Adalimumab	12	6	4	responder	-	
7	63	m	CD	A3L1B2	44	20						Adalimumab	7	7	4	responder	-	
27	58	m	CD	A3L3+L4B1	42	17			X			Adalimumab	16	7	4	responder	-	
21	24	m	CD	A1L2B1	13	11	X	X				Infliximab	10	29	4	responder	-	
11	26	m	CD	A1L1+L4B1	16	12						Adalimumab	15	1	0	responder	-	
28	22	m	CD	A1L3B1	16	6						Adalimumab	11	20	0	responder	-	
6	54	f	CD	A3L2B3p	51	3						Adalimumab	14	17	2	responder	-	
198	33	f	CD	A2L2LB1	27	6						Adalimumab	9	5	3	responder	-	
5	27	m	CD	A1L3B1	15	13						Adalimumab	3	8	0	responder	-	
29	34	m	CD	A2L1+L4B1	32	3						Infliximab	3	6	1	responder	-	
3	43	f	CD	A2L2+L4B1	35	9			X		X	Adalimumab	22	11	4	responder	-	
8	82	m	CD	A3L3B2p	52	30					X	Adalimumab	25	8	0	responder	-	
30	24	m	CD	A1L3B2	8	17		X				Infliximab	8	31	12	non-responder	secondary	
31	37	f	CD	A1L1B2	16	21						Infliximab	5	5	6	non-responder	secondary	
24	19	m	CD	A1L3B2	13	7					X	Adalimumab	20	24	26	non-responder	primary	
17	44	m	CD	A2L3B3	30	14		X				Adalimumab	6	7	6	non-responder	primary	
23	46	f	CD	A2L3+L4B3	27	20						Adalimumab	16	9	9	non-responder	primary	
15	47	m	CD	A2L3B1	37	10					X	Adalimumab	14	14	17	non-responder	primary	
18	28	m	CD	A1L3B2	16	12						Adalimumab	11	8	7	non-responder	primary	
32	38	f	CD	A2L2+L4B1	28	11						Infliximab	4	25	9	non-responder	primary	
19	49	m	CD	A2L2B3p	26	23						Infliximab	4	9	5	non-responder	primary	
13	56	m	CD	A3L3+L4B2p	46	11						Adalimumab	23	8	21	non-responder	secondary	
16	26	m	CD	A2L3B2p	19	8			X			Adalimumab	14	8	20	non-responder	primary	

Figure 3 statistics

Analysis	R	NR	p-value (R vs. NR)
Age [years]	40.88 ± 18.61	37.64 ± 11.94	0.61
Gender (f/m) [%]	31.25 / 68.75	27.27 / 72.72	-
Age at diagnosis	22.85 ± 37.82	24.18 ± 11.17	0.24
Disease Duration [years]	11.25 ± 10.08	14.00 ± 5.45	0.41
5-ASA [%]	6.25	0.00	-
BUD [%]	6.25	18.18	-
GCS [%]	18.75	9.09	-
MTX [%]	0.00	0.00	-
6-MP [%]	0.00	0.00	-
AZA [%]	12.5	18.18	-
Anti-TNF Ab. (Infliximab/Adalimumab) [%]	68.75 / 31.25	36.36 / 63.63	-
Duration anti-TNF treatment [month]	10.69 ± 6.80	11.36 ± 6.59	0.79
Prior anti-TNF therapy [SES-CD]	9.31 ± 7.05	13.45 ± 8.90	0.19
During anti-TNF therapy [SES-CD]	1.85 ± 1.74	12.55 ± 7.25	< 0.0001
Non-response (primary / secondary) [%]	-	72.72 / 27.27	-

Figure 4 patient information

ID	Age	Gender	Disease	Age at diagnosis	Disease duration [years]	Anti-TNF Ab.	Anti-TNF treatment [months]
33	23	m	CD	17	7	Adalimumab	14
34	36	f	CD	32	5	Adalimumab	34
9	59	f	CD	44	16	Adalimumab	59
35	23	m	CD	22	2	Infliximab	14
30	29	m	CD	8	22	Adalimumab	26
36	50	f	CD	49	2	Adalimumab	6
37	48	f	CD	48	1	Infliximab	3
38	25	f	CD	19	7	Adalimumab	10
39	46	f	CD	30	17	Adalimumab	33
40	29	m	CD	21	9	Infliximab	81
41	24	f	CD	15	9	Infliximab	7
42	39	f	CD	20	20	Infliximab	16
43	33	f	CD	26	7	Infliximab	7
44	58	f	CD	56	2	Adalimumab	6
45	28	m	CD	22	6	Infliximab	5
46	40	f	CD	23	17	Adalimumab	4
47	54	m	CD	17	37	Adalimumab	18
48	47	m	CD	23	24	Infliximab	62
49	45	m	CD	24	22	Adalimumab	52
50	33	f	CD	30	3	Infliximab	15
51	38	m	CD	21	17	Infliximab	53
52	52	f	CD	44	8	Adalimumab	6
53	25	f	CD	17	9	Adalimumab	15
16	27	m	CD	19	9	Infliximab	11
13	59	m	CD	46	13	Adalimumab	72
54	42	m	CD	41	1	Infliximab	5
55	42	m	CD	23	20	Adalimumab	9
56	26	f	CD	23	4	Adalimumab	8
57	44	m	CD	27	17	Adalimumab	13
6	54	f	CD	51	3	Adalimumab	14
58	46	f	CD	21	25	Adalimumab	14
59	53	f	CD	21	33	Adalimumab	28
60	25	f	CD	22	4	Infliximab	6
61	57	f	CD	45	12	Infliximab	18
62	21	m	CD	13	9	Adalimumab	36
Control 1	39	f	Control	-	-	-	-
Control 2	50	m	Control	-	-	-	-
Control 3	52	m	Control	-	-	-	-
Control 4	52	m	Control	-	-	-	-
Control 5	73	f	Control	-	-	-	-
Control 6	59	m	Control	-	-	-	-
Control 7	70	m	Control	-	-	-	-

Figure 5a patient information

ID	Age	Gender	Disease	Montreal classification	Age at diagnosis	Disease duration [years]	Concomitant medical treatment						Anti-TNF Ab.	Anti-TNF treatment [months]	During anti-TNF [SES-CD]	Anti-TNF	Non-response
							5-ASA	BUD	GCS	MTX	6-MP	AZA					
63	40	f	CD	A2L1B3p	37	4							Adalimumab	21	1	responder	-
64	49	f	CD	A1L3B2	16	34		X					Infliximab	13	4	responder	-
65	21	m	CD	A2L1B2p	18	4		X					Infliximab	23	1	responder	-
66	27	f	CD	A2L1B2	19	9							Infliximab	6	4	responder	-
67	23	m	CD	A2L3B3p	20	3					X		Infliximab	14	3	responder	-
35	23	m	CD	A2L1B1	22	2	x						Infliximab	14	1	responder	-
9	59	f	CD	A3L3B1	44	16							Adalimumab	59	4	responder	-
56	26	f	CD	A2L1+L4B3	25	2							Infliximab	32	2	responder	-
68	33	f	CD	A2L3B1	21	13	X						Adalimumab	9	17	non-responder	secondary
69	19	m	CD	A1L1B2	13	6				X			Infliximab	11	9	non-responder	primary
57	44	m	CD	A2L3B2	27	17	X						Adalimumab	13	11	non-responder	primary
70	37	f	CD	A1L2B2p	16	22		X					Adalimumab	14	21	non-responder	secondary
71	49	f	CD	A2L2B2p	39	10							Adalimumab	8	6	non-responder	primary
72	37	m	CD	A1L1+L4B3p	15	22				X			Adalimumab	20	8	non-responder	secondary
73	28	f	CD	A2L1B2	17	11	X	X					Infliximab	14	7	non-responder	primary
74	30	m	CD	A1L2B2p	16	15							Adalimumab	39	12	non-responder	secondary
75	22	f	CD	A2L3+L4B2	17	6		X					Infliximab	14	8	non-responder	secondary
76	37	m	CD	A2L3B2	23	14							Infliximab	15	7	non-responder	secondary
77	20	m	CD	A2L1B3	18	2							Adalimumab	9	11	non-responder	secondary
78	49	f	CD	A2L3B2	37	12	X						Adalimumab	15	9	non-responder	secondary

Figure 5a statistics

Analysis	R	NR	p-value (R vs. NR)
Age [years]	33.50 ± 14.18	33.75 ± 10.42	0.96
Gender (f/m) [%]	62.50 / 37.50	50.00 / 50.00	-
Age at diagnosis	25.13 ± 3.54	21.58 ± 8.56	0.40
Disease Duration [years]	9.25 ± 11.07	12.50 ± 6.12	0.40
5-ASA [%]	12.50	33.33	-
BUD [%]	25.00	25.00	-
GCS [%]	0.00	0.00	-
MTX [%]	0.00	16.66	-
6-MP [%]	0.00	0.00	-
AZA [%]	12.50	0.00	-
Anti-TNF Ab. (Infliximab/Adalimumab) [%]	75.00 / 25.00	33.33 / 66.66	-
Duration anti-TNF treatment [month]	22.75 ± 16.61	15.08 ± 8.22	0.18
During anti-TNF therapy [SES-CD]	2.50 ± 1.41	10.50 ± 4.42	0.0001
Non-response (primary / secondary) [%]	-	33.33 / 66.66	-

Figure 5b patient information

ID	Age	Gender	Disease	Montreal classification	Age at diagnosis	Disease duration [years]	Concomitant medical treatment						Anti-TNF Ab.	Anti-TNF treatment [months]	Prior anti-TNF [SES-CD]	During anti-TNF [SES-CD]	Anti-TNF	Non-response
							5-ASA	BUD	GCS	MTX	6-MP	AZA						
71	48	f	CD	A2L2B2p	39	9			X				none	-	14	-	naive	-
79	37	m	CD	A2L1B3	36	1							none	-	5	-	naive	-
80	52	m	CD	A1L3B1	16	36		X					none	-	7	-	naive	-
81	30	m	CD	A2L2+L4B1	27	4	X	X					none	-	4	-	naive	-
82	25	m	CD	A1L1+L4B2	11	14					X		none	-	2	-	naive	-
83	29	m	CD	A2L3B2	29	1			X				none	-	15	-	naive	-
199	54	m	CD	A3L3+L4B2	42	13			X				none	-	9	-	naive	-
19	52	m	CD	A2L2B3p	26	26	X						none	-	8	-	naive	-
84	30	f	CD	A2L3B2	23	7					X		none	-	7	-	naive	-
85	48	f	CD	A2L3B2	18	30							none	-	6	-	naive	-
86	36	m	CD	A2L2B1	28	8	X						none	-	14	-	naive	-
87	21	f	CD	A2L2B1	18	3							none	-	14	-	naive	-
88	50	m	CD	A1L3B2p	15	36	X						none	-	6	-	naive	-
89	28	f	CD	A2L2B1	21	8					X		none	-	15	-	naive	-
90	37	m	CD	A2L3B2p	22	15							Adalimumab	72	-	4	responder	-
91	36	m	CD	A2L3+L4B2p	17	20							Adalimumab	6	-	3	responder	-
34	36	f	CD	A2L3B1	32	5		X					Adalimumab	34	-	0	responder	-
9	59	f	CD	A3L3B1	44	16							Adalimumab	59	-	4	responder	-
37	48	f	CD	A3L2B1	48	1			X				Infliximab	3	-	0	responder	-
35	23	m	CD	A2L1B1	22	2	X						Infliximab	14	-	1	responder	-
39	46	f	CD	A2L1B3p	30	17							Adalimumab	33	-	0	responder	-
49	44	m	CD	A2L3B2p	24	21							Adalimumab	40	-	4	responder	-
34	37	f	CD	A2L3B1	32	5		X					Adalimumab	42	-	2	responder	-
53	25	f	CD	A2L3B2p	17	9							Adalimumab	15	-	2	responder	-
92	37	m	CD	A2L1B2	27	10	X						Adalimumab	41	-	0	responder	-
58	47	f	CD	A2L2B3	21	27							Adalimumab	16	-	4	responder	-
56	26	f	CD	A2L1+L4B3	25	2							Infliximab	32	-	2	responder	-
93	22	m	CD	A1L3B3p	3	20							Adalimumab	60	-	12	non-responder	secondary
33	23	m	CD	A2L3B3p	17	7		X					Adalimumab	14	-	6	non-responder	secondary
62	21	m	CD	A1L3B1	13	9							Adalimumab	36	-	7	non-responder	secondary
30	29	m	CD	A1L3B2	8	22	X		X		X		Adalimumab	26	-	17	non-responder	primary
36	50	f	CD	A3L2B2p	49	2			X				Adalimumab	6	-	16	non-responder	primary
38	25	f	CD	A2L3+L4B3	19	7	X						Adalimumab	10	-	14	non-responder	secondary
94	20	f	CD	A1L3+L4B2p	10	10	X						Infliximab	15	-	5	non-responder	secondary
95	19	m	CD	A2L1+L4B1	17	2			X				Adalimumab	6	-	17	non-responder	secondary
52	52	f	CD	A3L3+L4B2	44	8							Adalimumab	6	-	11	non-responder	primary
96	47	f	CD	A2L3+L4B1	32	16							Infliximab	56	-	6	non-responder	primary
97	30	m	CD	A2L1B2p	17	14							Infliximab	16	-	5	non-responder	primary
98	43	f	CD	A2L3+L4B1	35	9							Infliximab	56	-	7	non-responder	primary
99	55	m	CD	A3L2B2	41	15			X				Infliximab	39	-	5	non-responder	secondary
100	23	f	CD	A2L1B3	20	4			X				Adalimumab	27	-	9	non-responder	secondary
74	30	m	CD	A1L2B2	16	15							Adalimumab	39	-	12	non-responder	secondary
101	35	f	CD	A2L3+L4B3	29	7	X						Adalimumab	23	-	8	non-responder	secondary

Figure 5b statistics

Statistics	Anti-TNF naive	R	NR	p-value (R vs. NR / anti-TNF naive vs. NR)
Age [years]	38.57 ± 11.63	38.54 ± 11.028	32.75 ± 12.55	0.19 / 0.29
Gender (f/m) [%]	35.71 / 64.28	61.53 / 38.46	50.00 / 50.00	-
Age at diagnosis	24.93 ± 9.23	27.77 ± 9.48	23.13 ± 13.61	0.30 / 0.67
Disease Duration [years]	14.00 ± 12.63	11.54 ± 8.41	10.44 ± 6.00	0.68 / 0.32
5-ASA [%]	35.71	15.38	25.00	-
BUD [%]	7.14	15.38	6.25	-
GCS [%]	21.42	7.69	31.25	-
MTX [%]	0.00	0.00	0.00	-
6-MP [%]	0.00	0.00	0.00	-
AZA [%]	28.57	0.00	6.25	-
Anti-TNF Ab. (Infliximab/Adalimumab) [%]	-	23.07 / 76.92	31.25 / 68.75	-
Duration anti-TNF treatment [month]	-	31.31 ± 20.33	27.19 ± 18.62	0.57 / -
During anti-TNF therapy [SES-CD]	-	2.00 ± 1.68	9.81 ± 4.38	0.0001 / -
Non-response (primary / secondary) [%]	-	-	37.50 / 62.50	-

Figure 6 patient information

ID	Age	Gender	Disease	Age at diagnosis	Disease duration [years]	Anti-TNF Ab.	Anti-TNF treatment [months]
16	27	m	CD	19	9	Infliximab	11
13	59	m	CD	46	13	Adalimumab	72
54	42	m	CD	41	1	Infliximab	5
55	42	m	CD	23	20	Adalimumab	30
102	37	f	CD	36	2	Adalimumab	28
103	27	m	CD	25	2	Adalimumab	9
104	52	f	CD	47	6	Adalimumab	31
105	46	m	CD	6	41	Infliximab	34
106	41	m	CD	22	19	Adalimumab	40
107	68	f	CD	41	28	Infliximab	64
108	56	f	CD	27	29	Adalimumab	33
109	37	m	CD	20	18	Adalimumab	38
110	60	f	CD	42	19	Adalimumab	3
111	37	f	CD?	24	13	Infliximab	4
112	22	f	CD	15	8	Adalimumab	51
113	24	f	CD	21	4	Infliximab	17
114	29	f	CD	17	13	Infliximab	39
115	66	f	CD	46	21	Infliximab	27
116	47	f	CD	21	26	Infliximab	42
117	32	m	CD	11	21	Adalimumab	6
118	36	f	CD	19	17	Infliximab	51
119	23	f	CD	10	13	Adalimumab	17
120	44	f	CD	21	23	infliximab	50
121	39	m	CD	33	6	Infliximab	34
71	41	f	CD	27	12	Infliximab	13
122	32	f	CD	31	2	Infliximab	3
123	40	m	CD	35	6	Infliximab	14
96	47	f	CD	32	15	Infliximab	3
32	42	f	CD	28	15	Infliximab	50
124	32	f	CD	19	14	Infliximab	72
125	23	m	CD	19	5	Infliximab	15
45	29	m	CD	22	7	Infliximab	16
126	38	f	CD	27	12	Infliximab	23
12	47	f	CD	29	19	Infliximab	66
127	65	f	CD	22	44	Infliximab	87
20	49	f	CD	39	10	Adalimumab	31
91	38	m	CD	17	22	Adalimumab	25
128	58	m	CD	53	5	Adalimumab	22
129	27	m	CD	25	2	Infliximab	3
130	55	f	CD	46	10	Adalimumab	21
Control 8	30	f	Control	-	-	-	-
Control 9	43	f	Control	-	-	-	-
Control 10	54	f	Control	-	-	-	-
Control 11	31	f	Control	-	-	-	-
Control 12	45	f	Control	-	-	-	-
Control 13	43	f	Control	-	-	-	-

Figure 7ab patient information

ID	Age	Gender	Disease	Age at diagnosis	Disease duration [years]	Anti-TNF Ab.	Anti-TNF treatment [months]
131	34	m	CD	29	5	Adalimumab	42
132	57	m	CD	34	5	Adalimumab	31
133	26	f	CD	25	2	Infliximab	7
100	23	f	CD	20	4	Adalimumab	27
52	50	f	CD	44	7	Infliximab	11
134	23	m	CD	19	5	Infliximab	51
135	45	f	CD	24	21	Adalimumab	3
136	58	m	CD	38	22	Infliximab	13
137	75	f	CD	67	8	Infliximab	5
138	32	m	CD	8	25	Adalimumab	8
139	49	m	CD	39	11	Infliximab	12
90	37	m	CD	22	15	Adalimumab	72
63	40	f	CD	37	4	Adalimumab	21
108	54	f	CD	27	27	Adalimumab	7
140	29	m	CD	14	16	Adalimumab	8
141	32	f	CD	26	6	Infliximab	10
142	48	f	CD	47	2	Infliximab	16
143	50	f	CD	21	30	Infliximab	11
144	23	m	CD	15	9	Adalimumab	24
145	60	f	CD	27	34	Infliximab	18
16	25	m	CD	19	7	Infliximab	35
146	45	f	CD	18	27	Infliximab	5
147	20	f	CD	18	2	Adalimumab	5
148	30	f	CD	26	4	Infliximab	20
149	52	m	CD	28	24	Infliximab	9
150	21	m	CD	16	5	Infliximab	36
151	29	f	CD	18	11	Infliximab	54
152	22	f	CD	20	3	Infliximab	20
153	31	f	CD	26	5	Infliximab	11
32	41	f	CD	28	13	Infliximab	32
154	39	m	CD	18	21	Infliximab	15
155	25	f	CD	20	5	Infliximab	21
Control 14	34	m	Control	-	-	-	-
Control 15	64	m	Control	-	-	-	-
Control 16	56	m	Control	-	-	-	-
Control 17	66	m	Control	-	-	-	-
Control 18	89	f	Control	-	-	-	-
Control 19	58	f	Control	-	-	-	-
Control 20	18	m	Control	-	-	-	-
Control 21	47	m	Control	-	-	-	-
Control 22	83	m	Control	-	-	-	-
Control 23	86	m	Control	-	-	-	-
Control 9	41	f	Control	-	-	-	-
Control 10	51	f	Control	-	-	-	-
Control 24	35	m	Control	-	-	-	-
Control 25	49	f	Control	-	-	-	-
Control 11	29	f	Control	-	-	-	-
Control 26	40	f	Control	-	-	-	-
Control 27	31	f	Control	-	-	-	-
Control 28	52	f	Control	-	-	-	-

Figure 7c patient information

ID	Age	Gender	Disease	Montreal classification	Age at diagnosis	Disease duration [years]	Concomitant medical treatment						Anti-TNF Ab.	Anti-TNF treatment [months]	Prior anti-TNF [SES-CD]	During anti-TNF [SES-CD]	Anti-TNF	Non-response
							5-ASA	BUD	GCS	MTX	6-MP	AZA						
87	21	f	CD	A2L2B1	18	3							none	-	14	-	naive	-
88	50	m	CD	A1L3B2p	15	36	X						none	-	6	-	naive	-
89	28	f	CD	A2L2B1	21	8						X	none	-	15	-	naive	-
156	53	f	CD	A3L3B3p	47	7						X	none	-	4	-	naive	-
157	34	f	CD	A2L1B3	21	14							none	-	9	-	naive	-
158	38	f	CD	A2L1+L4B2	21	18			X			X	none	-	1	-	naive	-
159	38	f	CD	A2L3	30	9							Adalimumab	43	-	3	responder	-
160	36	f	CD	A2LB1p	27	10							Infliximab	110	-	0	responder	-
29	37	m	CD	A2L1+L4B1	32	5							Infliximab	32	-	1	responder	-
161	62	m	CD	A3L1B2	61	1	X	X					Infliximab	20	-	4	responder	-
120	42	f	CD	A2L1B1	21	21							Infliximab	33	-	0	responder	-
162	40	f	CD	A2L2B1	28	12	X						Infliximab	44	-	1	responder	-
58	47	f	CD	A2L2B2p	21	27							Adalimumab	16	-	4	responder	-
163	50	m	CD	A2L2B1	38	13			X				Infliximab	10	-	3	responder	-
68	33	f	CD	A2L3B1	21	13	X						Adalimumab	9	-	17	non-responder	secondary
21	26	m	CD	A1L2B1	13	14			X				Infliximab	42	-	5	non-responder	secondary
100	23	f	CD	A2L1B3	20	4			X				Adalimumab	27	-	9	non-responder	secondary
52	52	f	CD	A3L3+L4B2	44	8							Adalimumab	6	-	11	non-responder	primary
96	47	f	CD	A2L3+L4B2	32	16							Infliximab	56	-	6	non-responder	primary
97	30	m	CD	A2L1B2p	17	14							Infliximab	16	-	5	non-responder	primary
98	43	f	CD	A2L3+L4B1	35	9							Infliximab	56	-	7	non-responder	primary
99	55	m	CD	A3L2B2	41	15			X				Infliximab	39	-	5	non-responder	secondary
164	21	m	CD	A1L3+L4B1	13	9							Infliximab	26	-	12	non-responder	primary
147	23	f	CD	A2L3+L4B2	18	5							Infliximab	13	-	12	non-responder	primary
Control 29	40	m	Control	-	-	-	-	-	-	-	-	-	-	-	-	-	control	-
Control 14	34	m	Control	-	-	-	-	-	-	-	-	-	-	-	-	-	control	-
Control 17	66	m	Control	-	-	-	-	-	-	-	-	-	-	-	-	-	control	-
Control 18	89	f	Control	-	-	-	-	-	-	-	-	-	-	-	-	-	control	-
Control 19	58	f	Control	-	-	-	-	-	-	-	-	-	-	-	-	-	control	-
Control 20	18	m	Control	-	-	-	-	-	-	-	-	-	-	-	-	-	control	-
Control 21	47	m	Control	-	-	-	-	-	-	-	-	-	-	-	-	-	control	-
Control 22	83	m	Control	-	-	-	-	-	-	-	-	-	-	-	-	-	control	-

Figure 7c statistics

Statistics	Anti-TNF naive	R	NR	p-value (R vs. NR / anti-TNF naive vs. NR)
Age [years]	37.33 ± 12.42	44.00 ± 8.76	35.70 ± 12.85	0.12 / 0.76
Gender (f/m) [%]	16.66 / 83.33	62.50 / 37.50	60.00 / 40.00	-
Age at diagnosis	23.83 ± 11.60	32.25 ± 12.89	25.40 ± 11.58	0.25 / 0.79
Disease Duration [years]	14.33 ± 11.88	12.25 ± 8.36	10.70 ± 4.20	0.60 / 0.38
5-ASA [%]	16.66	25.00	10.00	-
BUD [%]	0.00	12.50	0.00	-
GCS [%]	16.66	25.00	30.00	-
MTX [%]	0.00	0.00	0.00	-
6-MP [%]	0.00	0.00	0.00	-
AZA [%]	50.00	0.00	0.00	-
Anti-TNF Ab. (Infliximab/Adalimumab) [%]	-	75.00 / 25.00	70.00 / 30.00	-
Duration anti-TNF treatment [month]	-	38.50 ± 31.39	29.00 ± 18.40	0.43 / -
During anti-TNF therapy [SES-CD]	-	2.00 ± 1.69	8.90 ± 4.04	0.0004 / -
Non-response (primary / secondary) [%]	-	-	60.00 / 40.00	-

Figure 7d patient information

ID	Age	Gender	Disease	Montreal classification	Age at diagnosis	Disease duration [years]	Concomitant medical treatment						Anti-TNF Ab.	Prior anti-TNF [SES-CD]	During anti-TNF [SES-CD]	Anti-TNF	Non-response
							5-ASA	BUD	GCS	MTX	6-MP	AZA					
165	24	m	CD	A1L2B1	15	10							Adalimumab	5	4	responder	-
8	76	m	CD	A3L3B2p	52	24						X	Adalimumab	8	0	responder	-
3	41	f	CD	A2L2+L4B1	35	7			X			X	Adalimumab	11	4	responder	-
4	31	f	CD	A2L2LB1	22	10						X	Adalimumab	10	2	responder	-
5	26	m	CD	A1L3B1	15	11	X		X				Adalimumab	8	0	responder	-
9	54	f	CD	A3L3B1	44	11				X		X	Adalimumab	6	7	non-responder	secondary
10	33	f	CD	A1L3+L4B1	15	19							Adalimumab	8	6	non-responder	primary
11	25	m	CD	A1L1+L4B1	16	9						X	Adalimumab	5	10	non-responder	primary
16	22	m	CD	A2L2B3p	19	3			X				Adalimumab	8	11	non-responder	secondary
15	46	m	CD	A2L3B1	37	9		X				X	Adalimumab	12	20	non-responder	secondary
16	22	m	CD	A2L3B2p	19	3			X				Adalimumab	8	11	non-responder	secondary
17	43	m	CD	A2L1B2	30	13		X				X	Adalimumab	7	9	non-responder	primary

Figure 8abc patient information

ID	Age	Gender	Disease	Age at diagnosis	Disease duration [years]	Anti-TNF Ab.	Anti-TNF treatment [months]
57	44	m	CD	27	17	Infliximab	7
52	50	f	CD	44	7	Infliximab	11
58	46	f	CD	21	25	Adalimumab	14
59	53	f	CD	21	33	Adalimumab	28
60	25	f	CD	22	4	Infliximab	6
61	57	f	CD	45	12	Infliximab	18
167	35	f	CD	26	9	Infliximab	13
44	58	f	CD	56	2	Adalimumab	9
84	30	f	CD	23	7	Adalimumab	4
168	53	m	CD	53	3	Adalimumab	29
169	24	f	CD	22	2	Adalimumab	20
170	29	f	CD	18	11	Adalimumab	10
171	74	f	CD	33	41	Infliximab	50
172	43	f	CD	26	18	Infliximab	39
173	21	f	CD	18	3	Infliximab	10
144	23	m	CD	15	9	Adalimumab	24
174	32	m	CD	24	8	Infliximab	11
145	60	f	CD	27	34	Infliximab	18
175	45	f	CD	38	7	Adalimumab	10
176	71	m	CD	65	6	Infliximab	13
177	19	m	CD	16	4	Infliximab	8
178	54	m	CD	31	23	Infliximab	59
90	37	m	CD	22	15	Adalimumab	72
66	27	f	CD	19	9	Infliximab	10
179	82	f	CD	82	3	Infliximab	26
161	62	m	CD	61	2	Infliximab	3
180	22	f	CD	19	3	Infliximab	15
181	65	m	CD	61	5	Infliximab	27
182	26	f	CD	22	4	Infliximab	17
55	41	m	CD	23	19	Infliximab	31
134	24	m	CD	19	6	Infliximab	64
164	20	m	CD	13	7	Infliximab	6
149	53	m	CD	28	25	Infliximab	15
183	56	f	CD	28	29	Infliximab	20
125	22	m	CD	19	4	Infliximab	4
184	25	m	CD	23	3	Infliximab	8

Figure 8d patient information

ID	Age	Gender	Disease	Montreal classification	Age at diagnosis	Disease duration [years]	Concomitant medical treatment						Anti-TNF Ab.	Anti-TNF treatment [months]	During anti-TNF [SES-CD]	Anti-TNF	Non-response
							5-ASA	BUD	GCS	MTX	6-MP	AZA					
185	27	f	CD	A2L1B2	19	9							Infliximab	58	3	responder	-
64	49	f	CD	A1L3B2	16	34		X					Infliximab	13	4	responder	-
186	36	f	CD	A2L3B2p	27	10							Adalimumab	20	0	responder	-
9	59	f	CD	A3L3B1	44	16							Adalimumab	5	4	responder	-
37	48	f	CD	A3L2B1	48	1			X				Infliximab	3	0	responder	-
67	23	m	CD	A2L3B3p	20	3					X		Infliximab	14	3	responder	-
187	36	f	CD	A3L3B2	55	3				X			Adalimumab	21	4	responder	-
68	33	f	CD	A2L3B1	21	13	X						Adalimumab	9	17	non-responder	secondary
188	39	f	CD	A2L1B2p	33	7							Infliximab	3	11	non-responder	primary
189	22	m	CD	A2L1B1	19	4			X				Adalimumab	4	17	non-responder	primary
190	24	f	CD	A2L3+L4B1	17	7					X		Infliximab	7	9	non-responder	primary
191	46	f	CD	A2L3B2p	19	28							Infliximab	5	23	non-responder	primary
95	19	m	CD	A2L1+L4B1	17	2			X				Adalimumab	6	17	non-responder	secondary
57	44	m	CD	A2L3B2	27	17	X						Adalimumab	13	11	non-responder	primary
192	38	f	CD	A2L1B2	20	19					X		Infliximab	11	6	non-responder	primary
70	37	f	CD	A1L2B2p	16	22		X					Adalimumab	14	21	non-responder	secondary
74	30	m	CD	A1L2B2	16	15							Adalimumab	39	12	non-responder	secondary
76	37	m	CD	A2L3B2	23	14							Infliximab	15	7	non-responder	secondary
193	36	f	CD	A2L1+L4B2	34	2							Adalimumab	13	15	non-responder	secondary
78	49	f	CD	A2L3B2	37	12	X						Adalimumab	15	11	non-responder	secondary
194	32	f	CD	A2L3B3p	18	15					X		Adalimumab	4	8	non-responder	primary

Figure 8d statistics

Statistics	R	NR	p-value (R vs. NR)
Age [years]	39.71 ± 12.88	34.92 ± 9.16	0.30
Gender (f/m) [%]	85.71 / 14.28	64.28 / 35.71	-
Age at diagnosis	32.71 ± 15.91	22.64 ± 7.18	0.05
Disease Duration [years]	10.86 ± 11.45	12.64 ± 7.65	0.67
5-ASA [%]	0.00	21.42	-
BUD [%]	14.28	7.14	-
GCS [%]	14.28	14.28	-
MTX [%]	14.28	0.00	-
6-MP [%]	0.00	0.00	-
AZA [%]	14.28	21.42	-
Anti-TNF Ab. (Infliximab/Adalimumab) [%]	57.14 / 42.85	35.71 / 64.28	-
Duration anti-TNF treatment [month]	19.14 ± 18.43	11.29 ± 9.09	0.20
During anti-TNF therapy [SES-CD]	2.57 ± 1.81	13.21 ± 5.22	< 0.0001
Non-response (primary / secondary) [%]	-	50.00 / 50.00	-

Supplementary figure 2 patient information

ID	Age	Gender	Disease	Age at diagnosis	Disease duration [years]	Anti-TNF Ab.	Anti-TNF treatment [months]
181	65	m	CD	61	5	Infliximab	27
195	64	f	CD	54	11	Infliximab	17
32	43	f	CD	28	16	Infliximab	6
196	54	m	CD	33	22	Infliximab	7
147	22	f	CD	18	5	Infliximab	6
197	36	f	CD	31	6	Infliximab	35