

Supplementary materials

Supplemental Table S1. Characteristics of all patients with at any time point available Epstein-Barr virus (EBV) serology (N=207). Results are represented in mean and standard deviation (SD) or median and interquartile range (IQR).

Supplemental Table 1 Characteristics of all patients with available EBV serology at any time point (N=207 of a total of 402)					
Factors	All patients (n=207)	EBV positive (n=110)	EBV negative (n=97)	P-value	
Males, n (%)	115 (55.6)	64 (58.2)	51 (52.6)	0.418*	
Age at EBV testing					
Mean (SD)	11.4 (4.0)	12.2 (3.7)	10.4 (4.2)	0.001**	
Median (IQR)	12.0 (9.0-14.0)	13.0 (10.0-15.0)	11.0 (8.0-14.0)	0.006**	
Age groups, n (%)				0.018*	
0-9 years	61 (29.5)	24 (21.8)	37 (38.1)		
9-13 years	67 (32.4)	36 (32.7)	31 (32.0)		
13-18 years	79 (38.1)	50 (45.5)	29 (29.9)		
Diagnosis, n (%)				0.872*	
Ulcerative colitis	84 (40.6)	45 (40.9)	39 (40.2)		
Crohn's disease	110 (53.1)	59 (53.6)	51 (52.6)		
IBD-undefined	13 (6.3)	6 (5.5)	7 (7.2)		

*P-values refer to the comparison between EBV positive group and EBV negative group obtained by the Pearson's Chi-square test.

** P-values obtained from the Wilcoxon rank-sum test.

Supplemental Table S2. Characteristics of all patients with inflammatory bowel disease (IBD) in our cohort (N= 402). Results are represented in mean and standard deviation (SD) or median and interquartile range (IQR).

Supplemental Table S2 Characteristics of all patients with IBD in our cohort (N= 402)				
Factors	All patients (n=402)	EBV status available (n=207)	No EBV status available (n=195)	P-value
Males, n (%)	226 (56.2)	115 (55.6)	111 (56.9)	0.782*
Age at IBD diagnosis				
Mean (SD)	11.0 (4.0)	11.1 (4.0)	11.0 (4.0)	0.464**
Median (IQR)	12.0 (9.0-14.0)	12.0 (9.0-14.0)	12.0 (9.0-14.0)	0.237**
Age groups, n (%)				0.183*
0-9 years	124 (30.9)	65 (31.4)	59 (30.3)	
9-13 years	148 (36.8)	68 (32.9)	80 (41.0)	
13-18 years	130 (32.3)	74 (35.7)	56 (28.7)	
Diagnosis, n (%)				0.275*
Ulcerative colitis	153 (38.1)	84 (40.6)	69 (35.4)	
Crohn's disease	228 (56.7)	110 (53.1)	118 (60.5)	
IBD-unclassified	21 (5.2)	13 (6.3)	8 (4.1)	

*P-values refer to the comparison between EBV positive group and EBV negative group obtained by the Pearson's Chi-square test.

** P-values obtained from the Wilcoxon rank-sum test.

Supplemental Table S3. Characteristics of patients with available follow up Epstein-Barr virus (EBV) serology (N=66). Results are represented in mean and standard deviation (SD) or median and interquartile range (IQR).

Supplemental Table 3 Characteristics of patients with available follow up EBV serology (N=66)				
Factors	All patients (N=66) No. (%)	EBV positive (n=11) No. (%)	EBV negative (n=55) No. (%)	P-value
Males, n (%)	32 (48.5)	6 (54.5)	26 (47.3)	0.748 ^{b)}
Age				
Mean (SD)	14.5 (4.1)	13.9 (4.5)	14.7 (4.0)	0.903 ^{c)}
Median (IQR)	15.5 (13.0-17.0)	16.0 (9.0-17.0)	15.0 (13.0-17.0)	0.743 ^{d)}
Age groups ^{a)}				0.223 ^{b)}
0-13 years	20 (30.3)	4 (36.4)	16 (29.1)	
13-16 years	27 (40.9)	2 (18.2)	25 (45.5)	
16-25 years	19 (28.8)	5 (45.5)	14 (25.5)	
Follow up time Mean (SD)	4.3 (3.0)	5.0 (4.2)	4.2 (2.8)	0.951 ^{c)}
Diagnosis				0.613 ^{b)}
Ulcerative colitis	27 (40.9)	4 (36.4)	23 (41.8)	
Crohn's disease	36 (54.5)	6 (54.5)	30 (54.5)	
IBD-unclassified	3 (4.5)	1 (9.1)	2 (3.6)	
Therapies				
Biologicals	50 (75.8)	7 (63.6)	43 (78.2)	0.440 ^{b)}
Thiopurines	31 (47.0)	8 (72.7)	23 (41.8)	0.097 ^{b)}
Methotrexate	18 (27.3)	1 (9.1)	17 (30.9)	0.265 ^{b)}
Combotherapy	24 (36.4)	4 (36.4)	20 (36.4)	1.000 ^{b)}
* 5-aminosalicylic acid	41 (62.1)	8 (72.7)	33 (60.0)	0.513 ^{b)}

a) We considered the cut-offs according to the 1. Quartile and median age in the longitudinal cohort.

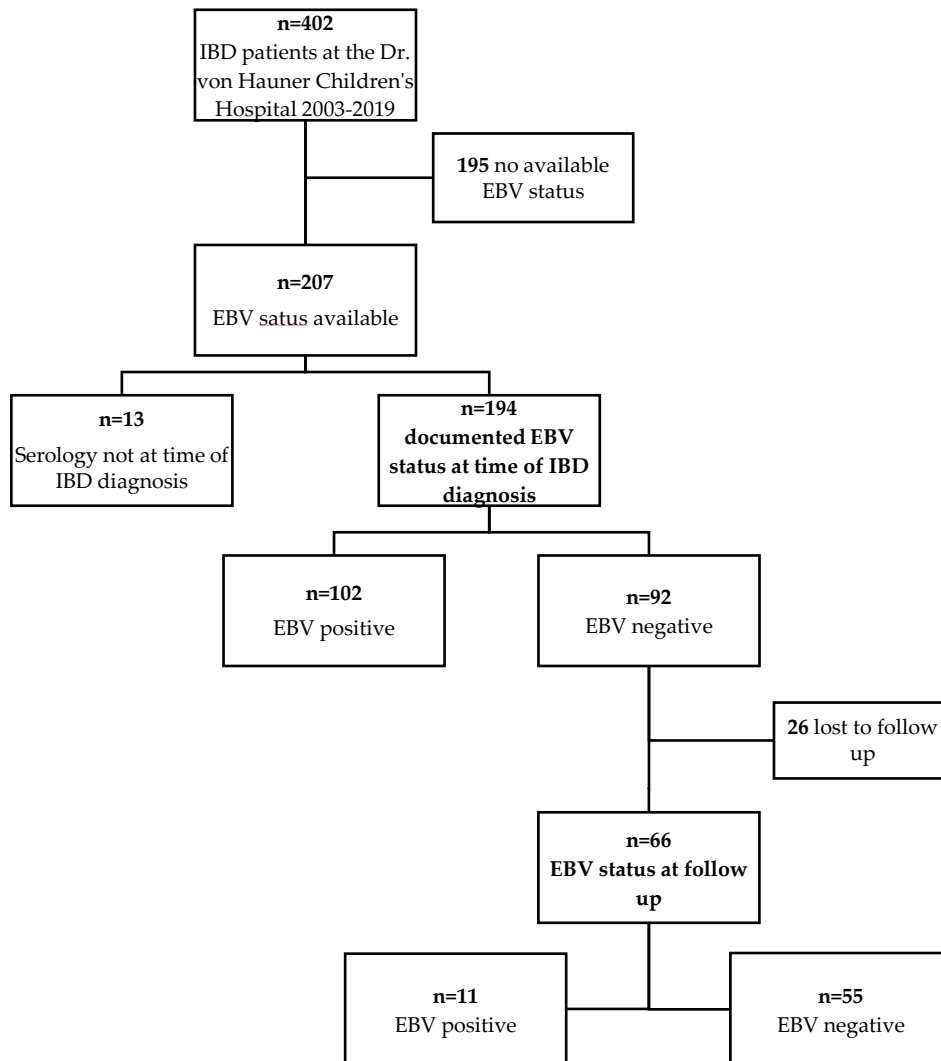
b) P-values refer to comparison between EBV positive and EBV negative group obtained by the Fisher's Exact Test.

c) P-values obtained from Wilcoxon-Mann-Whitney test (Wilcoxon rank sum test).

d) P-values applied from Median test.

* Combination therapy of a biological and methotrexate or thiopurines.

Supplemental Figure S1. Flow chart of study population.



Supplemental Figure S2. Box plot for age at first inflammatory bowel disease (IBD) diagnosis by Epstein-Barr virus (EBV) status (N=194), $p=0.005$.

