

**Supplementary material**

**Supplementary Table 1. Montreal Classification of Crohn's Disease patients: A1, below 17 years old; A2, between 17 and 40 years old; A3, above 40 years old.** NS/NP, Non-Stricturing/Non-Penetrating; SpA, Spondyloarthritis; NIU, Non-Infectious Uveitis; HLA, Human Leukocyte Antigen; CRP, C-Reactive Protein; HBI, Harvey-Bradshaw Index. Continuous variables were presented as mean and Standard Deviation (SD) and compared using the parametric unpaired t test or Student's test when appropriate. Categorical variables were presented with absolute frequencies and percentages and were compared using the Chi-squared test or Fisher's exact test when appropriate. A p-value < 0.05 was considered significant.

	<b>A1</b>	<b>A2</b>	<b>A3</b>	<b>P (A1-A2)</b>	<b>P (A2-A3)</b>	<b>P (A1-A3)</b>
Patients; <i>n</i> (%)	14 (4.8)	183 (63.5)	84 (29.1)	-	-	-
Females; <i>n</i> (%)	6 (42.8)	102 (55.7)	51 (60.7)	0.35	0.44	0.2
Obese; <i>n</i> (%)	0 (0)	3 (1.6)	7 (8.3)	-	<b>0.007</b>	-
Smoking history; <i>n</i> (%)	7 (50)	67 (36.6)	35 (41.6)	0.31	0.42	0.55
Ileum involvement; <i>n</i> (%)	7 (50)	120 (65.5)	65 (77.3)	0.24	0.05	<b>0.03</b>
Colon involvement; <i>n</i> (%)	2 (14.2)	25 (13.6)	9 (10.7)	0.94	0.5	0.69
Ileocolon involvement; <i>n</i> (%)	5 (35.7)	38 (20.7)	10 (11.9)	0.19	0.69	<b>0.02</b>
NS/NP phenotype; <i>n</i> (%)	5 (35.7)	93/168 (55.3)	35/78 (44.8)	0.27	0.37	0.52
Stricturing phenotype; <i>n</i> (%)	8 (57.1)	52/168 (30.9)	35/78 (44.8)	<b>0.04</b>	<b>0.03</b>	0.39
Penetrating phenotype; <i>n</i> (%)	1 (7.1)	23/168 (13.6)	8/78 (10.2)	0.48	0.45	0.71
SpA family history; <i>n</i> (%)	0 (0)	6 (3.2)	2 (2.3)	-	0.69	-
Psoriasis; <i>n</i> (%)	2 (14.2)	25 (13.6)	12 (14.2)	0.94	0.89	1
NIU; <i>n</i> (%)	0 (0)	11 (6)	2 (2.3)	-	0.2	-
HLA-B27; <i>n</i> (%)	0/5 (0)	7/85 (8.2)	3/31 (9.6)	-	0.8	-
CRP (mg/L); <i>mean</i> ± <i>SD</i>	2.1 ± 1.3	11.5 ± 7.2	9.4 ± 6.7	0.23	0.18	0.16
Moderate-severe HBI at onset; <i>n</i> (%)	0 (0)	41 (22.4)	33 (39.2)	-	<b>0.004</b>	-

**Supplementary Table 2. Number and phenotypes of spondyloarthritis diagnosed in Crohn's Disease patients according to Montreal Classification: A1, below 17 years old; A2, between 17 and 40 years old; A3, above 40 years old.** SpA, Spondyloarthritis. Categorical variables were presented with percentages and were compared using the Chi-squared test or Fisher's exact test when appropriate. A p-value < 0.05 was considered significant.

<b>Patients (n=288)</b>	<b>A1 (n=14)</b>	<b>A2 (n=183)</b>	<b>A3 (n=84)</b>	<b>P (A1-A2)</b>	<b>P (A2-A3)</b>	<b>P (A1-A3)</b>
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SpA; <i>n</i> (%)	106 (36.8)	2 (14.2)	73 (39.8)	30 (35.7)	0.06	0.51	0.11
Peripheral; <i>n</i> (%)	75 (70.7)	1 (50)	50 (68.4)	23 (76.6)	0.58	0.40	0.39
Axial; <i>n</i> (%)	31 (29.2)	1 (50)	23 (31.5)	7 (23.3)	0.58	0.40	0.39

**Supplementary Figure 1. Clinical characteristics of patients from our cohorts. A)** Location of Ulcerative Colitis patients at bowel disease onset. **B)** Crohn's Disease phenotype at bowel disease onset. **C)** Location of Crohn's Disease patients at bowel disease onset. NS/NP, Non-Stricturing/Non-Penetrating.

