

Supplementary:

Table S1: Baseline characteristics of all included patients ≥ 2 DXA scans

Variable	<i>n</i> = 233
Male, <i>n</i> (%)	103 (44.2)
Age at diagnose of IBD (years), median (range)	23 (8–66)
Age at first DXA scan (years), median (range)	36 (18–77)
Montreal classification of CD:	
Age, <i>n</i> (A1:A2:A3)	25:187:21
Location, <i>n</i> (L1:L2:L3:L4), <i>n</i> = 232	63:35:134:22
Behaviour, <i>n</i> (B1:B2:B3), <i>n</i> = 231	65:56:110
Disease duration at first DXA scan (years), median (range)	9 (0–42)
Presence of at least one extraintestinal manifestation, <i>n</i> (%)	126 (54.1)
Active cigarette smoking at first DXA scan, <i>n</i> = 221 (%)	85 (36.5)
BMI (kg/m ²), mean \pm SD (range)	23.8 \pm 4.8 (14.6–43.1)
History of anti-TNF α treatment, <i>n</i> (%)	44 (18.9)
History of anti-integrin treatment, <i>n</i> (%)	1 (0.4)
History of anti-interleukin treatment, <i>n</i> (%)	0 (0)
History of immunomodulator treatment, <i>n</i> (%)	79 (33.9)
History of bowel resection(s), <i>n</i> (%)	173 (74.2)
Short bowel syndrome, <i>n</i> (%)	6 (2.6)
Ostomy, <i>n</i> (%)	17 (7.3)
BMD, mean \pm SD (range)	0.887 \pm 0.128 (0.609–1.224)
BMD lumbar spine, mean \pm SD (range)	0.939 \pm 0.141 (0.623–1.423)
BMD femur, mean \pm SD (range)	0.836 \pm 0.146 (0.440–1.277)
BMD according to T-score of WHO	
Normal BMD:osteopenia:osteoporosis (<i>n:n:n</i>)	59:112:62
Number of DXA scans per patient	
2, <i>n</i> (%)	73 (31.3)
3, <i>n</i> (%)	54 (23.2)
4, <i>n</i> (%)	39 (16.7)
5, <i>n</i> (%)	27 (11.6)
6, <i>n</i> (%)	11 (4.7)
7, <i>n</i> (%)	8 (3.4)
8, <i>n</i> (%)	9 (3.9)
9, <i>n</i> (%)	6 (2.6)
10, <i>n</i> (%)	2 (0.9)
11, <i>n</i> (%)	3 (1.3)
12, <i>n</i> (%)	1 (0.4)

BMD: bone mineral density; BMI: body mass index; CD: Crohn's disease; DXA: dual energy X-ray absorptiometry; SD: standard deviation; TNF α : tumor necrosis factor alpha; WHO: world health organization; Montreal classification of Crohn's disease: A1: age < 16 years; A2: age 17–40 years; A3: age > 40 years; L1: location ileal; L2: location colonic; L3: location ileal and colonic; L4: location upper gastrointestinal tract; B1: non-stricturing non penetrating behavior; B2: stricturing behavior; B3: penetrating behavior.

Table S2. Comparison of baseline characteristics between the subgroups of patients with osteoporosis versus those without osteoporosis in patients ≥ 2 DXA scans.

Variable	Osteoporosis <i>n</i> = 62	No Osteoporosis <i>n</i> = 171	<i>p</i> -Value
Male, <i>n</i> (%)	34 (54.8)	69 (40.4)	0.049 ¹
Age at diagnosis of CD (years), median (range)	23.5 (8–66)	23 (9–58)	0.210 ²
Age at first DXA scan (years), median (range)	43 (18–77)	34 (18–67)	0.025 ²
Montreal classification of CD:			
Age			0.001 ¹
A1	7 (11.3)	18 (10.5)	
A2	42 (67.7)	145 (84.8)	
A3	13 (21.0)	8 (4.7)	
Location			0.289 ¹
L1	20 (32.8)	43 (25.1)	
L2	6 (9.8)	29 (17.0)	
L3	35 (57.4)	99 (57.9)	
L4	2 (3.3)	20 (11.7)	0.054 ¹
Behaviour			0.937 ¹
B1	18 (29.0)	47 (27.8)	
B2	14 (22.6)	42 (24.9)	
B3	30 (48.4)	80 (47.3)	
Disease duration at first DXA scan (years), median (range)	10 (0–42)	8 (0–39)	0.290 ²
Presence of at least one extraintestinal manifestation, <i>n</i> (%)	30 (48.4)	96 (56.1)	0.294 ¹
Active cigarette smoking at first DXA scan, <i>n</i> (%)	23 (38.3)	62 (38.5)	0.981 ¹
BMI (kg/m ²), mean \pm SD (range)	21.2 \pm 4.0 (14.6–31.1)	24.7 \pm 4.7 (15.2–43.1)	<0.001 ²
History of anti-TNF α treatment, <i>n</i> (%)	12 (18.7)	32 (19.4)	0.912 ¹
History of anti-integrin treatment, <i>n</i> (%)	1 (1.6)	0 (0)	0.096 ¹
History of immunomodulator treatment, <i>n</i> (%)	22 (35.5)	57 (33.3)	0.759 ¹
History of bowel resection(s), <i>n</i> (%)	51 (82.3)	122 (71.3)	0.092 ¹
Short bowel syndrome, <i>n</i> (%)	5 (8.1)	1 (0.6)	0.001 ¹
Ostomy, <i>n</i> (%)	7 (11.3)	10 (5.8)	0.158 ¹

BMI: body mass index; CD: Crohn's disease; DXA: dual energy X-ray absorptiometry; SD: standard deviation; TNF α : Tumor necrosis factor alpha; ¹ Chi-squared test; ² Mann-Whitney-test; Montreal classification of Crohn's disease: A1: age < 16 years; A2: age 17–40 years; A3: age > 40 years; L1: location ileal; L2: location colonic; L3: location ileal and colonic; L4: location upper gastrointestinal tract; B1: non-stricturing non penetrating behavior; B2: stricturing behavior; B3: penetrating behavior