**Supplementary Materials**

**Table 1. Clinical Characteristics of the 56 Patients with Disease Progression**

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|  | **Progression to stricturing or penetrating diseases(n=56)** |
| Age at symptom onset, mean ± SD, years | 20.9 ± 7.7 |
| Age at diagnosis, mean ± SD, years | 23.0 ± 8.4 |
| Sex, male, n (%) | 37 (66.1%) |
| Smoking history, n (%) |  |
|  Current smoker | 2 (3.6%) |
|  Ex-smoker | n.a.$ |
|  Non-smoker | 54 (96.4%) |
| Duration of follow-up\*, median (IQR), years | 2.2 (1.3 - 4.9) |
| Diagnostic delay&, median (IQR), years | 1.1 (0.3 - 2.9） |
| Delay in initiation of anti-TNF# , median (IQR), years | 0.2(0.0.1-0.5） |
| Age at diagnosis, years, n (%) |  |
|  ≤16,A1 | 15 (26.8%) |
|  17-40,A2 | 37 (66.1%) |
|  >40, A3 | 4 (7.1%) |
| Location of disease presentation, n (%) |  |
|  Ileum, L1 | 5 (8.9%) |
|  Colon, L2 | 5 (8.9%) |
|  Ileocolon, L3 | 46 (82.1%) |
|  Isolated upper GI, L4 | n.a.$ |
| Perianal disease, n (%)CRP, median (IQR), mg/L | 34 (60.7%)15.9 (7.4-41.0) |
| ATT therapy regimens, n (%) | 45 (80.4%) |
|  INH monotherapy | 45 (80.4%) |
|  INH combined with RFP | n.a.$ |
| Treatment duration of anti-TNF  | 12.6(7.0-23.2) |
| Medical therapy priorto anti-TNF initiation, n (%) |  |
|  None | 21 (37.5%) |
|  Mesalazine | 11 (19.6%) |
|  Steroid | 11 (19.6%) |
|  Immunomodulators | 13 (23.2%) |
| Therapy regimens after anti-TNF initiation, n (%) |  |
|  Monotherapy | 21 (37.5%) |
|  Combination therapy with immunomodulators | 35 (62.5%) |
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|  |  |
|  |  |

\* Duration of follow-up: from the last time of follow-up to CD diagnosis.

& Diagnostic delay: from symptom onset to CD diagnosis.

# Delay in initiation of anti-TNF: from CD diagnosis to anti-TNF initiation

$ Results were not available as there were no events in patients with ex-smoker, isolated upper GI involvement, and INH and RFP combination.

ATT: Antitubercular therapy; SD: Standard deviation; IQR: Interquartile range; GI: Gastrointestinal; CRP: C-reactive protein; INH: Isoniazid; RFP: Rifampicin; TNF: Tumor Necrosis Factor.

**Table 2. Baseline Characteristics of Patients in the Propensity Score Matching Cohort**

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| --- | --- | --- | --- |
|  | **ATT group(n=228)** |  **Non-ATT group (n=114)** | ***P* value** |
| Age at symptom onset, mean ± SD, years | 21.4 ± 7.4 | 22.1 ± 7.5 | 0.421 |
| Age at diagnosis, mean ± SD, years | 22.6 ± 7.7 | 23.2 ± 7.9 | 0.47 |
| Sex, male, n (%) | 163 (71.5%) | 74 (64.9%) | 0.609 |
| Smoking history, n (%) |  |  | 0.448 |
|  Current smoker | 10 (4.4%) | n.a.$ |  |
|  Ex-smoker | 2 (0.9%) | 6 (5.3%) |  |
|  Non-smoker | 216 (94.7%) | 108 (94.7%) |  |
| Duration of follow-up\*, median (IQR), years | 2.9 (1.6 - 4.4) | 3.1 (1.6 - 4.9) | 0.3 |
| Diagnostic delay&, median(IQR), years | 0.9 (0.3 - 1.9） | 0.8 (0.3 - 2.0) | 0.794 |
| Delay in initiation of anti-TNF, median (IQR)#, years | 0.1(0.06-0.5) | 0.1(0.05-0.6) | 0.617 |
| Age at diagnosis, years, n (%) |  |  | 0.445 |
|  ≤ 16,A1 | 48 (21.5%) | 18 (15.8%) |  |
|  17-40,A2 | 173 (75.9%) | 91 (79.8%) |  |
|  > 40, A3 | 7 (3.1%) | 5 (4.4%) |  |
| Location of disease presentation, n (%) |  |  | 0.647 |
|  Ileum, L1 | 16 (7.0%) | 11 (9.6%) |  |
|  Colon, L2 | 17 (7.5%) | 7 (6.1%) |  |
|  Ileocolon, L3 | 195 (85.5%) | 96 (84.2%) |  |
|  Isolated upper GI, L4 |  |  |  |
| Perianal disease, n (%) | 132 (57.9%) | 69 (60.5%) | 0.607 |
| CRP, median (IQR), mg/L | 13.7(8.9-40.5) | 14.8(4.8-29.4) | 0.167 |
| ATT therapy regimens, n (%) |  |  |  |
|  INH monotherapy | 223 (97.8%) | / |  |
|  INH combined with RFP | 5 (2.2%) | / |  |
| Duration of ATT#, mean ± SD, months | 4.42 ± 1.92 | / |  |
|  ≥4.5months, n (%) | 103 (45.2%) | / |  |
|  ＜4.5 months, n (%) | 125 (54.8%) | / |  |
| Treatment duration of anti-TNF, median (IQR), months  | 12.6(7.0-27.5) | 20.1(14.5-40.6) | **<0.001** |
| Medical therapy priorto anti-TNF initiation, n (%) |  |  | **<0.001** |
|  None | 82 (36.0%) | 70 (61.4%) |  |
|  Mesalazine | 33 (14.5%) | 14 (12.3%) |  |
|  Steroid | 37 (16.2%) | 14 (12.3%) |  |
|  Immunomodulators | 76 (33.3%) | 16 (14.1%) |  |
| Therapy regimens after anti-TNF initiation, n (%) |  |  | **<0.001** |
|  Monotherapy | 117 (51.3%) | 27 (23.7%) |  |
|  Combination therapy with immunomodulators | 111 (48.7%) | 87 (76.3%) |  |

\* Duration of follow-up: from the last time of follow-up to CD diagnosis.

& Diagnostic delay: from symptom onset to CD diagnosis.

# Delay in initiation of anti-TNF: from CD diagnosis to anti-TNF initiation

$ Results were not available as there was no events in patients with current smoker.

ATT: Antitubercular therapy; SD: Standard deviation; IQR：Interquartile rang; GI: Gastrointestinal; CRP: C-reactive protein; INH: Isoniazid; RFP: Rifampicin; TNF: Tumor Necrosis Factor.