

The Positive Influences of Increasing Age at Diagnosis of Inflammatory Bowel Disease on Disease Prognostication in Asian Perspective

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Article: Old Age at Diagnosis Is Associated With Favorable Outcomes in Korean Patients With Inflammatory Bowel Disease (*Intest Res* 2015;13:60-67)

The incidence and prevalence of 'western disease'; an IBD is increasing steadily for the past 2–4 decades in Asia Pacific region.¹

Based on the western epidemiologic data of IBD, a bimodal age distribution for CD and UC is observed. An initial peak for CD and UC is in the third decade whereas the second peak is between the ages of 40 to 70 years old.^{2,3} IBD experts in western countries have experienced for many decades in various clinical spectrum of IBD. However, the knowledge of the influence and impact of age on the clinical course, prognostication and therapeutic achievement in patients with CD and UC is conflicting, limited and not well defined.

Prior studies have identified specific differences between early-onset and adult-onset CD that may indicate the early-onset disease represents a more severe form. The French IBD database⁴ had demonstrated that early-onset CD (<16 years old) were more likely to be considered to have active disease, higher cumulative risk of thiopurine and anti-tumour necrosis factor agent use than adult-onset CD. The study also highlighted that despite the rate of smoking being less, early-onset CD was more active, was treated more aggressively with medications as compared to adult-onset CD patients. Quezada SM et al.⁵ have shown that in their CD cohort, old age patients were

more likely to have less complicated disease, but it may be confounded by differences in disease location and duration when compared with younger patients.

For the UC, Ha CY et al.⁶ revealed that patients with early-onset (18–30 years old) and late-onset (>50 years old) have similar initial clinical presentations, but differ in disease risk factors. The late-onset UC patients have significantly achieved steroid-free clinical remission (64 vs. 49%; $P=0.01$) compared to the early-onset UC patients. In contrast, several other studies found no differences or similar response in clinical course and therapeutic responsiveness between younger and older patients presented with flare of UC.⁷⁻⁹

With the aging of the population globally, the incidence of late-onset CD and UC is expected to be increased. Currently, IBD in patients aged >60 accounts for 10–15% of cases of disease.¹⁰ Therefore, careful attention on the age of diagnosis of IBD is important for optimizing the therapy of IBD.

To date, data on clinical course, therapeutic achievement and outcomes based on the Montreal Classification System in Asia are scarce.¹¹ A retrospective large cohort study from the two tertiary referral centers in south-east Korea was used to compare clinical characteristic based on age at diagnosis according to Montreal Classification System.¹² The authors found that the most common manifestation of IBD at diagnosis for old age group was haematochezia as opposed to abdominal pain for young patients. However, no difference was observed when patients were stratified into CD and UC. It is interesting to observe that in the sub-analysis of IBD cohort, there was no bimodal age distribution for CD cohort contrary to the western findings.

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Furthermore, there was a male predominant (in younger age group) as oppose to a traditional slight female predominance based on the western data and the most frequent location was ileal (L1) in all age group. Perianal disease was observed less frequently in the old age cohort reflecting better prognostication factor and this is similar to the recent finding in western study.⁵ However, there is no significant difference in the location of disease among all CD patients (but, the authors noted the small bowel disease was the most common site in all age group) which is similar to the findings by Ye et al.¹³ who reported previously that two-thirds of Korean CD patients had small bowel disease but differ significantly from the western data.^{14,15}

With regards to UC, the authors have found a similar bimodal age distribution to the western data with the two peak ages in the third and sixth decades of life and there were no significant differences among the groups by gender and extent of disease based on age at diagnosis.¹² Interestingly, the data for the disease extent across all age group was comparable with the previous findings by Ha et al.⁶ which also used the Montreal Classification system. However, several studies have shown less extensive disease when UC is diagnosed at the later life.

Overall, this retrospective and a relatively large cohort with majority of young patients with CD and old age patients with UC (might represent a true population of IBD) and a long duration follow-up from Korea have demonstrated that age at diagnosis of IBD based on the Montreal Classification System provide a valuable prognostic information for Asian IBD patients.¹² It clearly shown that the remission status, cumulative rate of surgery, cumulative utilization of immunomodulators and biologics were more favorable for old age than young age patients. Furthermore, stratification of IBD by age at diagnosis in the future may provide support for the concept of genetic heterogeneity.

In conclusion, with the current treatment strategy for IBD; 'step-up, top-down or accelerated step-up' approach which is not directly applicable for the older age patients who are confounded with multiple co-morbidities and alteration of the functions such as immunologic and cardio-metabolic status and poly-pharmacy that potentially affect the clinical course of IBD. Therefore, the current treatment strategy for IBD may have to be modified to account for late-onset or older age group of IBD patients.

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