Inflammatory bowel disease and African Americans

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To the Editor,

I read with interest Fiasse & Latinne 's published article on "Intestinal helminths : a clue explaining the low incidence of inflammatory bowel diseases in Subsaharan Africa ? Potential benefits and hazards of helminth therapy" (1). In their review, the authors demonstrated that the very low incidence and prevalence of Inflammatory Bowel Diseases (IBD) in sub-Saharan Africa cannot be explained by genetic factors since in Black populations of the U.S.A. and U.K., the incidence of these diseases is approaching that of the white populations.

Unfortunately, their opinion is contradicted by others.

In a recent article, Mahid *et al.* (2) conducted a systematic review of the literature on epidemiology of inflammatory bowel diseases (IBD) in African Americans. They concluded that American African patients with inflammatory bowel diseases formed 17% of all the studied subjects. The Caucasian and the African American IBD patients often shared similar distribution of type of inflammatory bowel disease (Crohn's disease 76% in Caucasians versus 68% in African Americans and ulcerative colitis 24% in Caucasians versus 32% in African Americans). Patients with Crohn's disease in both races also shared similar rates of ileocolonic locations (42% versus 38%), and presence of perianal disease (26% versus 29%).

Similarly, when the geographic variations of IBD distributions within the US was examined (3), a significant comparable geographic sharing was observed in the two races (Table 1).

Table 1. — **US States with the highest prevalence of Crohn's disease and ulcerative colitis (3)**

States with highest prevalence of IBD	White Populations	African American Populations
Northern States	1. Massachusetts 2. Pennsylvania 3. New Jersey 4. New York 5. Ohio, Michigan 5. Washington, Illinois 5. Connecticut 6. Maryland 7. Missouri, Wisconsin 8. Oregon 9. Indiana, Iowa 10. Minnestoa	1. Michigan 2. New Jersey 3. Maryland 4. Pennsylvania 5. Missouri 6. New York 7. Ohio
Southern States	1. Florida, Arizona 2. Virginia 3. California 4. Kansas, Alabama 5. Oklahoma, Tennessee 5. Texas 6. Louisiana 7. Georgia 7. North Carolina 7. Arkansas, Kentucky	1. Virginia 2. Georgia, Florida, 3. North Carolina 3. Alabama 4. Texas, California 5. Louisiana, Tennessee 6. Arkansas, Mississippi 7. South Carolina

Further, examination of mitochondrial DNA and Y polymorphic markers in different American populations identified positive European genetic contributions, "largely males" to the populations of African descent in the United States (4-6). Published studies demonstrated that northern US populations, where IBD predominate, showed a higher level of European ancestry than did southern US populations (6).

Evidence exists that mutant alleles play some role in the induction of inflammatory bowel diseases (7-9). It is likely that susceptibility to conduct disease is inherited across generations and disease manifestation is often influenced by other specific genetic or exogenous factors (10).

Abnormal bowel mucosa is a significant pathological characteristic in patients with inflammatory bowel diseases. It is likely that inherited changes in the functional properties of the acting alleles had made the mucosal membrane less resilient and more susceptible to damages and injuries (11). It is likely, therefore, that flown susceptible genetic alleles to IBD from Europeans played some role and led to the occurrence of these diseases in the African descent in the US. Our failure to identify this relationship may be a consequence of the influence of non genetic factors (12).

This may explain the great differences in the prevalence of Crohn's disease and ulcerative colitis between the African American and their relatives in their original African countries. This also reflects that the obvious North/South incidence gradient may in some occasions be directly related to individual movements rather than to places as such. Further, reports from Turkey and other places are also contradicting the authors' conclusion (13-15).

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Submission date : 05/12/2008
Acceptance date : 25/04/2009

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