Epidemiology of Paediatric IBD in the Greater Toronto Area

An analysis of incident paediatric cases of Inflammatory Bowel Disease (IBD) in the Greater Toronto Area over the past 3 decades confirms the importance of both genetic susceptibility and environmental factors, according to the paper Epidemiology of Paediatric IBD in the Greater Toronto Area, released February 27, 2004 at Canadian Digestive Diseases Week (CDDW) in Banff, Alberta.

As the GTA has become more cosmopolitan, children from all ethnic groups have been observed to develop IBD. “I believe our data corroborates that there are as yet unidentified environmental triggers that are important to the development of inflammatory bowel disease,” said Dr. Anne Griffiths, Professor of Pediatrics at the University of Toronto, and Director of the Paediatric IBD Program at the Hospital for Sick Children.

The data for the study was gathered prospectively from the Hospital for Sick Children IBD program database starting in 1980, with additional information provided by a study conducted in 1968-76. The analysis was restricted to patients less than 15 years at the time of diagnosis, and with postal code indicating residence in the Greater Toronto Area. “We have previously ascertained (via a questionnaire to adult gastroenterologists within the GTA) that children who develop symptoms of Crohn’s disease or ulcerative colitis before age 15 years are unlikely to be investigated and treated exclusively by an adult gastroenterologist. Consequently this analysis, while not truly population-based, does approach such for early-onset IBD” Dr. Griffiths said.

Most children who develop IBD are in late childhood or adolescence; the disorders occur, but are still rare in the pre-school age group. The observed demographic data concerning gender confirmed those derived in two other recent population-based studies of pediatric onset IBD (one from Wisconsin, and one from the United Kingdom and Ireland). In this Toronto study, as in those, Crohn’s disease developing prior to puberty is more common in males than females, an observation that is hitherto unexplained.

The data demonstrate that among children in the GTA Crohn’s disease has become more prevalent than ulcerative colitis, and both diseases are observed in all ethnic groups. Children of Jewish ethnicity have been consistently over-represented in the pediatric IBD population, and prevalence of familial disease in this subgroup is very high, observations that confirm genetic susceptibility (30% of the Jewish children have a first degree relative also affected). But, as this study demonstrates, children from a broad range of ethnic backgrounds, without affected relatives, and from countries where IBD is rare may develop either Crohn’s disease or ulcerative colitis.

When asked what the environmental factors might be, Dr. Griffiths responded, “Our epidemiologic data do not shed light on that question. But there are many lines of evidence, particularly for Crohn’s disease, which point to the importance of microbial factors in initiating IBD in genetically susceptible individuals”.

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