T1190

Influence of Rural/Urban Environment in the Severity of Inflammatory Bowel Disease

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Background: Previous studies have reported that inflammatory bowel disease (IBD), both Crohn's disease (CD) and ulcerative colitis (UC) are more common in urban areas, probably related to some characteristics of urban lifestyle. Influence of living in urban or rural areas in the severity of IBD is unknown. We hypothesized that living in urban areas may be associated to a more severity in IBD patients. Aim: We aimed at evaluating whether IBD patients from urban areas have a more aggressive illness. Methods: We conducted an observational study of all IBD patients (n=1225) followed in four tertiary centers over a 1-year period in a very homogeneous region with similar distribution of the population in urban and rural areas. Urban patients were defined as those living in towns of more than 10,000 inhabitants, and rural patients were all those living in towns of 10,000 inhabitants or less. We assessed severity of the disease as surgical resection, steroid-dependency, steroid-resistance, treatment with immunosuppressive drugs or biological therapies. Statistical analyzes were performed using logistic regression and Mann-Whitney tests as appropriate. Results: 1225 consecutive IBD patients, 684 (56%) CD and 541 (44%) UC, 629 (51%) male and 596 (49%) female, mean age 43 years, 677 (55%) from rural and 541 (45%) from urban were included. We found no relationship between patients place of residence and a more severe disease, neither considering all IBD patients together (p=0.17) not CD (p=0.49) or UC patients (p=0.75) considered separately. None of the parameters of severity analyzed (surgical resection, steroid-dependency, steroid-resistance, treatment with immunosuppressive drugs and biological therapies) were associated to rural or urban place of residence of patients. Conclusion: IBD patients living in urban areas don't develop a more severe illness. No differences were found between CD and UC patients.

T1191

Increasing Crohn's Disease Severity Over Time: Correlating Interval to First Surgery with Decade of Diagnosis

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Background: Rates of Crohn's disease (CD) hospitalizations have increased significantly from 1990 to 2003 despite advances in medical therapy (Bewtra M Clin Gastroenterol Hepatol 2007;5(5):597-601). This may reflect an increase in CD severity. Interval from time of diagnosis to first surgery is a potential marker of CD severity. We examined time to first surgery in a cohort of CD patients stratifying individuals by decade of diagnosis to estimate CD severity over time. Methods: This was a retrospective observational study of a CD cohort followed at a tertiary referral center. Patient demographics, year of diagnosis, CD phenotype (inflammatory, fistulizing, stricturing), gender, smoking, maintenance regimen [5-ASAs, immunomodulators (azathioprine, 6MP, methotrexate), biologics (infliximab, adalimumab alone or in combination with immunomodulators)], and time to first CD surgery were collected. Our outcomes were (1) all operative interventions and (2) laparotomy (resection, strictureplasty, diversion). Data was analyzed using multivariate regression. Results: A total of 888 CD patients met criteria for analysis. Patients were grouped by decade of diagnosis: 1970's and earlier (n=127, 14.3%), 1980's (n=136, 15.3%), 1990's (n=300, 33.8%; reference cohort), and 2000's (n=325, 36.6%). On multivariate analysis, patients diagnosed since 2000 had greater odds of an operative intervention (Odds ratio (OR) 2.2, 95% CI 1.5-3.2) or laparotomy (OR 2.0, 95% CI 1.5-3.2) within 2 years of diagnosis compared to those diagnosed in the 1990 cohort. Among patients who had surgery, the 2000 cohort had a significantly shorter time to first operative intervention (-3.5 yrs) or first laparotomy (-3.6 yrs) than the 1990 cohort, while those in the 1980 cohort had a longer time to first operative intervention or laparotomy. There was no difference in rates of surgery within 5 years of diagnosis between the cohorts. Stricturing (OR 8.5), fistulizing (OR 8.9) and combined (OR 11.6) phenotypes were all associated with higher rates of surgery within 2 years than the inflammatory subgroup. Patients requiring immunomodulator treatment were more likely (OR 1.4) to require laparotomy within 2 years of diagnosis compared to those not on immunomodulator therapy. Patients on 5-ASA alone or with combination therapy were less likely (OR 0.6) to require abdominal surgery within 2 years of diagnosis. Conclusions: Despite advances in medical treatment options, patients diagnosed with CD since 2000 have twice the risk of undergoing surgical intervention within 2 years of diagnosis compared to those diagnosed in the 1990's. These data suggest that CD severity has increased over recent decades.

T1192

Relationship Between Inflammatory Bowel Disease and Perinatal Factors

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Aims and background: Several reports have suggested a link between low birth weight and chronic disease. In the present study, the influences of maternal and paternal inflammatory disease (IBD) on perinatal outcomes in the offspring and the risk of perinatal factors for the development of IBD, were examined. Methods: Patients with IBD, 85 with Crohn's disease (CD) and 86 with ulcerative colitis (UC), altogether 81 males and 90 females, were selected from a population based incidence study enrolled 1990 to 1994. Birth records of these patients, as well as their 128 infants, were compared with the full birth cohort of singletons drawn from the Norwegian Medical Birth Registry, established 1967, born during the same period (712 176 and 486 697 singletons, respectively). Outcome measures included birth weight, low birth weight (LBW) < 2500 g, gestational age, preterm birth (< 37 wk), perinatal bacterial infection, and caesarean section. Results: Both maternal IBD (24/120, 20 %) (OR = 1.88, 95 % CI 1.31, 2.69) as well as paternal IBD (20/79, 25.3 %) (OR = 2.28, 95 % CI: 1.56, 3.34) affected the risk of preterm birth, with no differences between CD and UC. Maternal IBD (12/128, 9.4 %), when UC and CD were merged together, increased the risk

for LBW < 2500 g (OR = 1.85, 95 % CI: 1.08, 3.18). Crohn's disease in the mother, but only after onset of disease, was associated with lower birth weight in the infants (crude difference: - 259.85 g, 95 % CI: - 446.91, - 72.79). The difference in birth weight remained significant when adjusted for gestational age and sex (adjusted difference: - 169.66 g, 95 % CI: - 335.62, - 3.71). The proportion of perinatal bacterial infection among infants of maternal UC (3/39, 7.7 %) was higher compared to the controls (1.3 %) (OR = 6.03, 95 % CI: 2.03, 17.92). Patients with IBD (4/171, 2.3 %) had a significantly lower risk compared to the controls (8.5 %) to be delivered by caesarean section (OR = 0.27, CI 95 %: 0.10, 0.72). Low birth weight was not associated with IBD later in life. Conclusion: Both maternal and paternal IBD influence the outcomes of the infants. Any type of maternal and paternal IBD was linked to preterm birth and might suggest that genetic aetiological factors for IBD predisposed to preterm birth. Maternal CD, when diagnosed before pregnancy, affected the birth weight of the infants, and points to the importance of maternal factors during pregnancy, like nutritional state and disease activity. Mode of delivery seems to affect IBD later in life. Caesarean section might protect against exposure to bacterial antigens or other environmental factors.

T1193

Inflammatory Bowel Disease in HIV Seropositive Individuals: Analysis of a Large Cohort

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Aim: It is not known whether HIV infection influences the pathogenesis of IBD. We examined the prevalence of IBD between 1999 and 2006 in the largest European cohort of HIV seropositive patients and assessed the relevance of CD4 count to IBD onset. Methods: HIV clinic and pharmacy databases at the Chelsea and Westminster Hospital were searched. A diagnosis of IBD was confirmed by review of endoscopy and histology records. Infectious colitis was excluded by review of microbiology records. Results: 27 patients were identified with a diagnosis of both HIV and IBD. 26 patients were male. Median age was 45y (IQR 12). 8 patients were diagnosed with IBD before HIV. 4 patients were "tertiary referrals" from other centres. Of the 19 patients subsequently diagnosed with IBD, 5 had left sided or extensive ulcerative colitis, 5 proctitis, 2 Crohn's disease and 7 indeterminate colitis. Median CD4 count at the time of IBD diagnosis was 355 cells/mm3(IQR 180 cells/mm3). There was no significant change in CD4 count 6 months before or after IBD was diagnosed (median +18 cells/mm3, IQR +58). The mean annual incidence of UC and CD, excluding tertiary referral bias, was 1.9/10,000 and 0.2/10,000 respectively. Conclusion: Our cohort is the largest reported with a combined diagnosis of HIV and IBD. The incidence of UC is about double that expected in a normal population, although less than that published previously(1). There is no clear association with CD4 count and the time of diagnosis of IBD. References: 1.Sharpstone D et al. Eur J Gastroenterol and Hepatology 1996,8:575-578

T1195

Ulcerative Colitis in a South-European Country. A National Perspective

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Background: Incidence and prevalence rates of inflammatory bowel disease have been reported worldwide. In previous studies, including a multi-national European study concerning the years 1991-1993, Portugal was reported as having the lowest UC incidence and milder clinical behaviour. Aim: To identify the clinical characteristics of Portuguese UC patients. Methods: During a 15 month period (September 2005 - December 2006), Portuguese doctors (from 33 hospitals and clinics) collected clinical data by clinical charts consultation, complemented during routine medical examination, and sent it to a central data base by internet. Results: 5893 patients were included, 2863 with UC, representing about 50% of the calculated number of Portuguese patients with IBD. 57% were female and the median age at diagnosis was 37.8 years. At age of diagnosis 61% had ≤ 40 years, 7% ≤ 18 and 5% ≤ 16. Twenty one percent had ulcerative proctitis, 52% left side colitis and 28% extensive colitis. A total of 1700 (60 %) had taken steroids at least once, 398 (14%) immunosuppressors and 38 (1%) biologicals. Eighty seven (5.1%) where considered corticoresistant and 293 (17.2%) corticodependent. 125 patients (4 %) had been submitted to surgery. In the subgroups with diagnosis in a younger age (≤ 16, ≤ 18 or ≤ 40 years) when compared with the remaining patients a more aggressive phenotype was noticed, with more patients with chronic active disease, extensive colitis, use of steroids and immunosuppressors (table 1). The clinical behaviour over time, based in the therapeutic needs (steroids, immunosuppressors, surgery) was characterised by a initial period (first 5 years) of increasing severity followed by a stabilization with a significant group (1120 patients) never needing a single course of steroids. Conclusions: Although a significant percentage of Portuguese UC patients keep showing a mild clinical behaviour we also found a more aggressive phenotype in younger patients with an increased requirement of steroids and immunosuppressors.
Table 1

	Total	≤ 16 years	≤ 18 years	≤ 40 years	> 40 years
N	2863	130	201	1651	
Extensive colitis (%)	27	52 **	46 **	30 **	24
Chronic active (%)	7	8	12	9 **	6
Ext. Intest. Manif. (%)	17	26 *	23 *	19 **	12
Steroids (%)	60	69 *	72 *	63 **	57
Imunossupressors (%)	14	25 **	21 *	17 **	10
Surgery (%)	4	7	7	5	4

* p < 0.05; ** p < 0.001