Influence of environmental factors in the severity of inflammatory bowel disease

Background: Previous studies have reported the influence of some environmental factors like tobacco, family history and appendectomy in development of inflammatory bowel disease (IBD). Influence of some environmental factors in the severity of IBD is controversial. We hypothesized that presence of some environmental factors may be associated to a more severity in IBD patients. **Aim:** We aimed at evaluating whether IBD patients with any environmental risk factor 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. We evaluated as potential environmental risk factors for IBD gender, smoking habits before diagnosis, appendectomy before diagnosis and family history (first degree) of IBD. We assessed severity of the disease with a severity index that included 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 of $p<0,05$ were considered as statically significant. **Results:** 1225 consecutive IBD patients, 684 (56%) Crohn´s disease (CD) and 541 (44%) ulcerative colitis (UC), 629 (51%) male and 596 (49%) female, mean age 43 years, were included. We found no relationship between gender and a more severe disease, neither CD patients ($p=0.45$), not UC patients ($p=0.82$). No relationship was found between family history of IBD and more severity CD ($p=0,61$) or CU ($p=0,62$). We observed that patients with appendectomy

previously to diagnosis developed a more severe CD ($p<0.01$), but appendectomy does not condition severity in UC ($p=0,63$). Smokers before diagnosis do not develop a more severe UC ($p=0.32$) and surprisingly patients smokers before diagnosis of CD have a tendency but they do not have a more severe illness ($p=0.06$). **Conclusion:** None of the environmental factors studied play role in severity of UC. Previous appendectomy is a risk factor for a more severe CD. Role of tobacco in severity of CD remains being controversial.