

Clinicoepidemiological characteristics of adult patients with inflammatory bowel disease diagnosed in 5 Greek teaching hospitals during the year 2003

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SUMMARY

Background: During the last two decades the incidence and prevalence of Ulcerative Colitis (UC) in some European countries reached a “plateau”, a fact that is in sharp contrast to Crohn’s disease (CD) which has shown up to a six-fold increase in incidence rates over the same period. New cases of CD now account for at least equal number of cases with UC. **Aim:** To present the results of the analysis of some clinicoepidemiological parameters of patients with IBD diagnosed during the year 2003 in 5 teaching hospitals situated in the great area of Athens and North Greece. **Results:** Seventy-seven new cases with IBD were diagnosed (40 patients with CD, 36 with UC and 1 with indeterminate colitis). Extensive/total colitis was observed in 21 out of 37 patients with UC (57%). One or more extraintestinal manifestations were observed in 11 (29.7%) patients with UC and 11 (27.5%) patients with CD. Duration of symptoms of less than one month was observed in 18 patients with UC (49%) and 9 (22.5%) patients with CD. Partial or complete response to treatment was observed in 97% and 90% of patients with UC and CD respectively. Significant differences between patients with CD and UC were observed only in the age at onset of the disease ($P < 0.05$). There was a tendency for significant differences between the two groups concerning duration of symptoms but differences did not reach statistical significance ($P = 0.078$). No significant differences

were observed in all other parameters examined including sex, family history of IBD, number and type of extraintestinal manifestations, smoking habits, and outcome of first attack. No significant differences were observed between men and women in all parameters examined except smoking habit. Indeed, significant differences in smoking habit were observed between men and women with UC ($P < 0.0001$), while in patients with CD differences did not reach statistical significance ($p = 0.078$). **Conclusion:** The number of new cases of CD referred to gastroenterology departments of teaching hospitals in Greece tend now to exceed the number of new cases with UC. The proportion of new cases with extensive UC is higher compared to the proportion of new cases with left colitis. No differences in the smoking habits between patients with UC and CD were found. The proportion of positive family history for IBD at the onset of the disease in either group of patients was low. Other clinical parameters did not show any significant differences compared to data described in previous studies originating from Greece.

Key words: Ulcerative colitis, Crohn’s disease, Inflammatory bowel disease, Epidemiology, Clinical characteristics

INTRODUCTION

It has been suggested that certain clinicoepidemiological characteristics of inflammatory bowel disease (IBD) are different in developing countries (e.g. former European east block countries, Africa, Asia, and South America), compared to those described in the developed European and North America.¹⁻⁹ On the other countries hand, during the last two decades the incidence and prevalence of Ulcerative Colitis (UC) in some European countries reached a “plateau”, a fact

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that is in sharp contrast to Crohn's disease (CD) which has shown up to a six-fold increase in incidence rates over the same period.^{10,11} In some European countries new cases of CD now account for at least an equal number of cases compared to UC.¹²

So far, four studies concerning the epidemiology of IBD were conducted in Greece. In the first two, the epidemiological characteristics of IBD were found to be similar to those referring to countries of North Europe,^{13,14} while in the other two, the incidence of CD was found to be quite low compared to other European countries.^{15,16} Both the clinical course and behavior of IBD in Greece have been previously described in numerous studies suggesting that they might be more benign compared to other developed countries.¹⁷⁻²⁶

During recent years it has become a common belief that the number of cases with CD seen in everyday clinical practice increased considerably and that the course of IBD might be more severe compared to previous years. The Hellenic IBD Study Group is currently conducting a prospective study, aiming to register all cases of IBD in Greece (including old and new ones) in order to further clarify the clinicoepidemiological characteristics of the disease in Greece. This would be of interest, because Greece is a country belonging to Europe but concurrently being Mediterranean. It is well known that people in the Mediterranean basin display significant differences in eating and other habits compared to countries of North Europe. These differences might have some impact on various epidemiological and clinical characteristics of the disease.

We present here the analysis of some clinicoepidemiological parameters of patients with IBD diagnosed during the year 2003 in 5 teaching hospitals located in

the great of Athens area and North Greece. The study continues via the collection of similar data referring to 2004.

MATERIALS AND METHODS

All cases of UC and CD diagnosed in the Gastroenterology departments of the general state hospitals of Nicea, Tzanion hospital of Pireaus, St Olga's hospital of N. Ionia, Athens' Polyclinic hospital, and Papanikolaou hospital Thessaloniki, were enrolled into the study. Details concerning various clinicoepidemiological parameters, diagnostic procedures, treatment, and outcome of disease were carefully recorded. Diagnosis of both diseases was based on classical clinical, endoscopic and histologic criteria, as well as on the results of various imaging techniques, when available. Statistical analysis of the data was performed with the help of SPSS statistical package. Pearson's Chi square test and t-test were used. A probability level of $p < 0.05$ was considered statistically significant.

RESULTS

During 2003, 77 new cases of IBD were identified in the above mentioned 5 gastroenterology departments. There were 40 patients with CD, 36 with UC and one patient with indeterminate colitis.

The results concerning the epidemiological and clinical characteristics of patients with UC and CD are shown in tables 1 and 2 respectively. As indicated in the tables significant differences between patients with CD and UC were observed only in the age at onset of the disease ($P < 0.05$). There was a tendency toward a significant difference between the two groups in the duration of symp-

Table 1. Epidemiological characteristics of patients with UC and CD.

Characteristic	Ulcerative colitis	Crohn's disease	P-value
Men	20	19	
Women	17	21	
Total	37	40	NS
Age (at onset of symptoms)	41.7+/-16.5	38.6±13.7	<0.05
Smoking habit			
Smokers	8 (21.5%)	16 (40%)	NS
Non-smokers	22 (59.5%)	20 (50%)	
Ex-smokers	7 (19%)	4 (10%)	
Positive family history for IBD	2/37 (5.4%)	0/40 (0%)	NS

NS= No significant differences

toms before the establishment of final diagnosis but differences did not reach statistical significance ($P=0.078$).

Concerning the type of CD according to Vienna classification, the non-stricturing, non-penetrating type was noticed in 28 patients (70%), the stricturing type in 4 patients (10%) and the penetrating type in 8 patients (20%).

Exclusive small bowel involvement was found in 9 CD patients (22.5%) while exclusive large bowel involvement was found in 8(20%). Concurrent large and small bowel involvement was noticed in 23 patients (57.5%) (Table 2).

Extraintestinal manifestations appeared concurrent-

ly in 11(29.7%) patients with UC and 11(27.5%) patients with CD. No significant differences between the two groups were noticed concerning the type of extraintestinal manifestation (Table 2).

No significant differences between the two groups were observed in all other parameters examined, including sex, family history of IBD, smoking habits, and outcome of first attack.

No significant differences were observed between men and women in all parameters examined, except of smoking habit. Indeed, significant differences in the smoking habit between men and women with UC were observed ($P<0.0001$), while in patients with CD, differ-

Table 2. Clinical characteristics of patients with UC and CD

Parameter	Ulcerative colitis	Crohn's disease	P-value
Location of disease			
<i>Proctitis</i>	3 (8%)		
<i>Left colitis</i>	13 (35%)		
<i>Extensive/total colitis</i>	21 (57%)		
<i>Small bowel</i>	9 (22.5%)		
<i>Large bowel</i>	8 (20%)		
<i>Small and Large bowel</i>	23 (57.5%)		
Extraintestinal manifestations			
<i>One only</i>	10 (27%)	8 (20%)	
<i>2 or more</i>	1 (2.7%)	3 (7.5%)	
<i>Total</i>	11 (29.7%)	11 (27.5%)	NS
Type of extraintestinal manifestation			
<i>Joints</i>	9 (24%)	8 (20%)	NS
<i>Skin</i>	2 (5.5%)	2 (5%)	
<i>Liver</i>	1 (2.5%)	1 (2.5%)	
Symptoms duration			
<i>< 1 month</i>	18 (49%)	9 (22.5%)	p=0.069
<i>1-6 months</i>	12 (32%)	21 (52.5%)	
<i>7-12 months</i>	4 (11%)	3 (7.5%)	
<i>> 1 year</i>	3 (8%)	7 (17.5%)	
Disease behavior			
<i>Non-stricturing, non-penetrating</i>	28 (70%)		
<i>Stricturing</i>	4 (10%)		
<i>Penetrating</i>	8 (20%)		
Response to medical treatment			
<i>No-response</i>	1 (3%)	4 (10%)	
<i>Partial</i>	12 (32%)	12 (30%)	
<i>Complete</i>	24 (65%)	24 (60%)	NS

NS= No significant differences

ences between men and women did not reach statistical significance ($p=0.078$). No significant differences inside the groups of patients with UC and CD, in all parameters examined, were found.

The response to medical treatment was quite satisfactory. In UC patients, complete and partial response was noticed in 97% of patients while the corresponding feature for CD patients was 90% (no significant differences).

DISCUSSION

The results derived from this study obviously have limitations and must be interpreted with caution, as they refer to cases either hospitalized or seen at the outpatient gastroenterology clinics of large hospitals in which patients with rather significant clinical problems seek medical care and help. However, it could be argued that, because the people attended the above mentioned outpatient clinics and emergency departments are coming from different parts of Greece, the results obtained from the analysis of the data could, to some degree, be representative of the real situation in the whole country.

Our results showed that the number of new cases of CD, now tend to exceed the number of new cases with UC. In all epidemiological studies conducted so far in Greece, the number of UC cases exceeded those of CD, a fact that is also true in other parts of the world.^{14-16,21,22} The increased number of new cases of CD is an interesting phenomenon because it shows that environmental or other factors are significantly involved in the changing pattern of IBD involvement in our country.

Men were almost equally affected from IBD as women. In a number of previous studies referring to Greek patients with UC the mean age at diagnosis of the disease was relatively smaller compared to the mean age at diagnosis found in this study (40.0 \pm 11.8 vs 41.7 \pm 16.5 years respectively) while in patients with CD the corresponding figures were 43.5 \pm 17 vs 38.6 \pm 13.7.^{21,22} It seems therefore that during the last years, patients with CD tend to develop symptoms at an earlier stage in their life.

Positive family history at the onset of the disease was found in 5.4% in patients with UC compared to 2.7% found in previous studies.²¹ None of the patients with CD had positive family history compared to 1.3% to 10% found in previous reports.^{22,13,14} So, at the onset of the disease, we can assume that a relatively low percentage of patients with either UC or CD displayed a positive family history for IBD. However, in the interpretation of

these results we must bear in mind that the proportions of positive family histories previously reported, referred to patients having a long follow-up, thus increasing the chance of obtaining a positive family history.

The results of this study showed no significant differences in smoking habits between the two groups, probably due to the small number of cases included in the study.

The extent of bowel involvement represents the major determinant of disease severity and the need for surgery. In a previous study it was found that in the great majority of patients with UC the location of disease at presentation was confined to the rectosigmoid area, or to the left colon or both (96.8%), while in only 3.2% subtotal or total colitis was observed.²¹ This contrasts sharply with what was found in this study in which extensive or total colitis was found in 57% and left colitis in 43% of patients with UC at first involvement, respectively. However, this does not necessarily mean that during recent years the length of bowel involvement extended proximally, simply because more severe instead of mild or moderately severe cases are seeking medical care in hospitals.

The response to treatment (partial or complete) in either group of patients with UC or CD was quite satisfactory reaching a percentage of 97% and 90% respectively.

All other clinical parameters are not different compared to data of other studies previously published in Greece.

In conclusion, from these preliminary results referring to hospital IBD patients for the year 2003, we can assume that the number of new cases of CD is increasing steadily. Moreover, the length of large bowel involvement at first presentation has also increased compared to previous reports. Differences in smoking habits between patients with UC and CD tend to disappear at first presentation. Response to medical treatment at first involvement is quite satisfactory.

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