Natural history of ulcerative colitis in Turkey

Türkiye'de ülseratif kolitin doğal seyri

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ÖZET: *1984-1985 yılları arasında Türkiye Yüksek İhtisas Hastanesinde izlenen 318 ülseratif kolit hastası epidemiolojik ve klinik olarak değerlendirildi. Ülseratif kolit her iki cinstede eşit oranlarda saptanırken üçüncü dekadta bir pik yapmaktaydı. Hastaların %88'i şehirlerde yerleşim gösterirken %12'si kırsal kesimde yaşamaktaydı. Eğitim düzeyleri genel populasyondan farklı bulunmadı. Hastaların %7.9'sine total kolektomi uygulanırken 11 yıllık mortalitemiz %3.4 olarak bulundu.*

Anahtar Kelimeler: **Ülseratif kolit, epidemioloji, populasyon, komplikasyon, sigara içimi, mortalite**

SUMMARY: *Epidemiological and clinical observations were made in 339 cases of inflammatory bowel disease between 1984 and 1995 at Turkiye Yüksek Ihtisas Hospital, Ankara. Ulcerative colitis affected both sexes equally and the peak incidence occurred in the 3rd decade of life. Of the patients, 88% were city residents, and the remaining lived in rural areas. The level of education was not different from general population. Colectomy was applied to 7.9 % of patients, and 3.4% of the patients died in a 11 year time period.*

Key words: **Ulcerative colitis, epidemiology, population, complications, smoking, mortality**

SYSTEMATIC epidemiological studies have not been done in Turkey, and the incidence and prevalence of ulcerative colitis (UC) are unknown. UC is believed to be rare in countries of southern Europe, and its course is milder than in northern European or North American countries (1). Between January 1984 and February 1995, 339 patients were seen at the gastroenterology department of Turkiye Yuksek Ihtisas Hospital. The hospital serves both urban and rural population.

The aim of the study was to collect and evaluate the clinical and epidemiological data for a large group of patients in Turkey.

Patients and methods

The study was based on UC patients evaluated over a 11 year period. There were 339 ulcerative colitis (UC) patients. Between 1993 and 1995, 178 of the UC cases were followed up and evaluated prospectively. The diagnosis was based on the characteristic clinical, radiologic, endoscopic and microbiologic criteria. The patients were either outpatients or hospital inpatients. The extent of disease involvement was estimated by radiologic, endoscopic and histologic findings. Attention was focused on the study of educational level, residency, smoking habits and complications.

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Results

Both sexes were equally affected among 339 UC patients (176 women and 163 men). The mean age was 38.8 (range 15-78) (fig-1). The mean interval from the symptom onset to diagnosis was 1.4 years (fig-II). Most of the patients were born in villages or small towns but had eventually settled in Ankara or other cities. Eighty-eight percent are living now in urban areas, and the remaining are in rural areas. Figure-III shows the evel of education of UC patients. The family history among first-degree relatives was positive in 6 of 178 patients (3.3%). Smoking habits were questioned in 118 of patients. Eleven of them were smokers (9.3%), 81 were nonsmokers (68.2%) and 26 were ex-smokers (22.5%) (Table 1). Only 2 patients had a history of taking oral contraceptives. Both of them have used pills for very short time periods and many years before the onset of the symptoms.

Of the patients 116(37%) had distal colitis, 106 (34%) left sided colitis and 101 (29%) pancolitis (n= 323). Severe attacks were seen in 11(7%) patients and 22 (13%) had continuous disease who were all in the prospective study group. The remaining 126(80%) had a disease course with exacerbation's and remissions (n=179). Intestinal and extra intestinal complications are shown in Table

Table 1. *Smoking habits in UC*

UC	smoker	non-smoker	ex-smoker
118	11(9.3%)	81(68.2%)	26(22%)

2 and Table 3. Routine stool tests showed amebiasis in 43(12%), giardiasis in 4, Invasive esherichia coli in 4 and klebsiella in 3 patients. Total colectomy was performed in 27 of 318 UC patients (7.9%). Twelve of them had underwent colectomies because of intractability, 6 with toxic megacolon, 4 with diagnosis of dysplasia, 3 with obstruction, one with perforation and one with mesentery artery embolisation. The total mortality ratio was 3.4% for 11 years (11 patients). The causes of deaths are listed in Table 4.

DISCUSSION

Especially during last 20 years many epidemiological studies about IBD (inflammatory Bowel disease) were published. The outcomes of the studies very often opposed each other. Methodological differences and small target group of the studies maybe the reason of this different results. The incidence of UC in Scandinavia is 8.1/100.000, in west Europe 5.1-6.8/100.000, in Minnesota 13.6/100.000 and in Middle east 5.8/100.000 (2). But the incidence and prevalence of UC in Turkey are not known. There is no study covering a large target group up-to-date. We decided to evaluate 339 UC cases of last 11 years and compare the results with the literature.

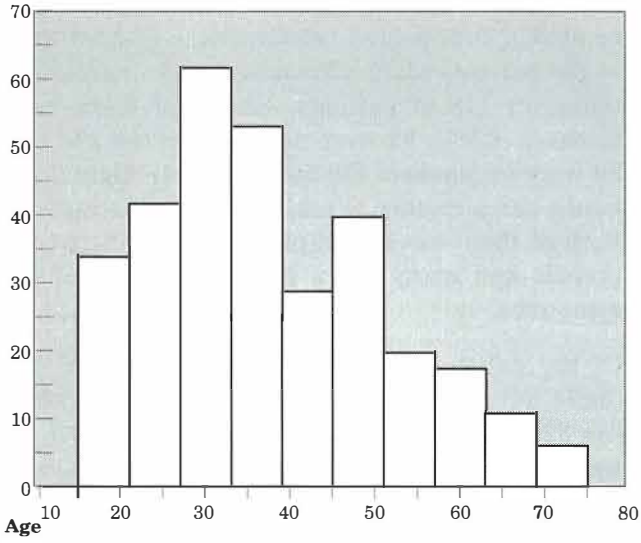

Figure 1. Age distribution of patients with ulcerative colitis

Table 2. *Intestinal complications of ulcrerative colitis*

	n	%
Perianal lesion	9	3
Toxic megacolon	7	2
Perforation	4	1.4
Stricture	4	1.4

SEX

Both sexes are equally affected in most of the studies. A study in North Europe showed a 30 percent female dominance (3). In our study 176 of the cases were female and 163 were male.

AGE

There is peak 15-25 age group in both genders. Studies from USA and Sweden report that the second peak is in 6th decade (4). We found a peak around 3rd decade for our study group.

RISK FACTORS

Studies carried out in England and Germany revealed, the incidence of IBD was found quite low among the people living in rural areas and low social level populations. But the incidence were high among the office workers in urban areas and high socioeconomic populations (5,6). In our study eighty-eight percent of cases were living in urban areas and the remaining in rural areas.

FAMILY HISTORY

A study in Stockholm has shown that 7.9 percent of UC cases had one or more relatives affected with diseases (7). Another study in Cleveland showed that 37% of 837 patients who were diagnosed before age 20 had positive family history

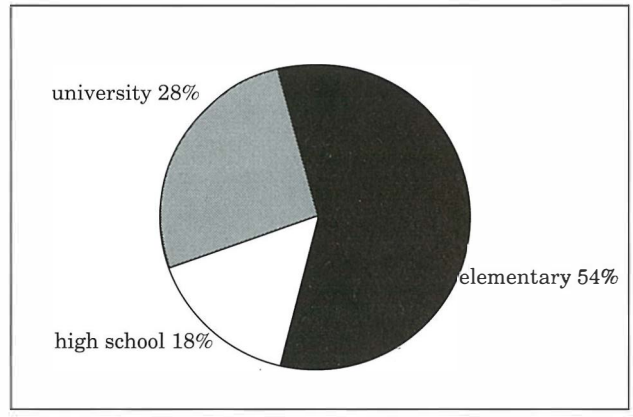

Figure 2. Level of education in ulcerative colitis patients

Table 3. *Exraintestinal complications of ulcerative colitis.*

	n	%
Cholelithiasis	9/178	5
Urolithiasis	3/178	1.4
Oral aphthous ulcer	6/339	2
Erythema nodosum	1/339	0.3
Arthritis	1/339	0.3
PSC	1/178	0.6
Eye involvement	20/78	25.6

(8). A 10.9% positive family history was reported from a study done in Iceland (9). This ratio is even higher in Jewish population(10). Family history was positive for the first degree relatives in %3.3 of our patients.

SMOKING

Different studies have showed that smoking has a negative relation with UC(11). Some studies indicated that former smokers, particularly those who were previously heavy smokers were even greater risk of developing the disorder. Eleven of 118 patients were smokers and 26 were ex smokers in this study. This results are supporting the current literature of smoking habits in UC patients. The reason for this relation is not well known. It is hypothesized that smoking could be protective via its immunosuppresive effect (12). In a controlled study with UC and SLE patients demonstrated a negative relation for smoking and UC while they could not find any association between SLE and smoking habits (13). This study makes immunosupressive theory questionable because of known immune nature of SLE.

ORAL CONTRACEPTIVE USE

Patients suffering from Crohn's Disease have been showing improvement in symptoms after stopping the use of OC's (Oral contraceptive) However the majority of studies on UC and CD have failed to confirm any relationship for OC use (14). There were only two patients who used OC many years before the onset of the symptoms and for a very short time period in our female study group.

Table 4. *Causes of mortality in ulcerative colitis*

	n
Ileus & perforation	4
Fulminant Disease	4
Sepsis	1
ARDS	1
Fracture of femure	1
Embolisation of a. mes	1
TOTAL	12(%3.4)

LOCALIZATION

According to the study of Farmer et al in a large population of UC patients 46% of the cases were located distally, 37% were pancolitis and 17% were left sided colitis (15). The results of a study from Greece were pointing out that most of the UC cases were left sided(16). In our series 116 patients (37%) had distal colitis, 106(34%) left sided colitis and 101(29%) pancolitis. The clinical course of the disease among the patients in our study were in accordance with the Greek study. Of the patients 80% had a disease course with excecarbations and remissions.

INFECTIONS

Infections have an important role in triggering and relapsing of the disease(17). In the subject study 12% of cases were accompanied with Entemoeba histolytica, 1.5% with Giardia intestinalis, 1.5% with Invasive Escherichia Coli and 1% with Klebsiella infections.

COMPLICATIONS

Numerous and varied complications may develop in the course of UC. The complications are not confined to the bowel but may occur systemically (2). Perianal lesions (3%) are the most common extra intestinal complications in our series. Colectomy was performed in 27(7%). Intractability was the main indication for total colectomy. Of the patients 3.4% died of various reasons. The mortality rate among UC patients was similar to that reported for highly developed countries (18).

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