Profile of patients with inflammatory bowel diseases in the southwest region of the Federal District

Perfil dos pacientes com doenças inflamatórias intestinais na região sudoeste do Distrito Federal

Perfil de pacientes con enfermedades inflamatorias intestinales en la región suroccidental del Distrito Federal

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REVISA

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RESUMO

Objetivo: descrever o perfil de pacientes com doença de Crohn e retocolite ulcerativa, em ambulatório. **Método:** estudo epidemiológico transversal, descritivo, com coleta de dados secundários. As informações foram coletadas por meio de prontuário eletrônico da rede pública de saúde. **Resultados:** selecionados 68 pacientes, dos quais 22 (32,4%) eram do sexo masculino e 46 (67,6%) feminino. Ao diagnóstico 48 (70,6%) pacientes apresentavam retocolite, e 20 (29,4%) Crohn. Nestes, o padrão mais encontrado (30%) foi de acometimento colônico, enquanto que na retocolite, a maioria (45,8%) apresentou pancolite. Os pacientes tiveram, em média, 10 meses de sintomas antes do diagnóstico. O medicamento mais utilizado nas doenças inflamatórias intestinais foi o aminossalicilato. Cerca de 9% foram submetidos à cirurgia. Nenhum paciente apresentou óbito. **Conclusão**: a maioria dos achados foram ao encontro dos estudos nacionais atuais. Porém, a heterogeneidade da doença e a carência de estudos, parecem ser os principais fatores para divergências.

Descritores: Doenças Inflamatórias Intestinais; Doença de Crohn; Colite Ulcerativa; Epidemiologia.

ABSTRACT

Objective: to describe the profile of patients with Crohn's disease and ulcerative colitis in an outpatient clinic. **Method:** cross-sectional, descriptive epidemiological study with secondary data collection. The information was collected through an electronic medical record of the public health network. **Results:** 68 patients were selected, of whom 22 (32.4%) were male and 46 (67.6%) were female. At diagnosis, 48 (70.6%) patients had colitis, and 20 (29.4%) Crohn's. In these, the most common pattern (30%) was colonic involvement, while in colitis, the majority (45.8%) presented pancolitis. Patients had, on average, 10 months of symptoms before diagnosis. The most widely used medicine in inflammatory bowel diseases was aminossaicylate. About 9% underwent surgery. No patient died. **Conclusion:** most of the findings were in line with current national studies. However, the heterogeneity of the disease and the lack of studies seem to be the main factors for divergences.

Descriptors Inflammatory Bowel Diseases; Crohn's disease; Ulcerative colitis; Epidemiology.

RESUMEN

Objetivo: describir el perfil de los pacientes con enfermedad de Crohn y colitis ulcerosa en un ambulatorio. **Método:** estudio epidemiológico descriptivo transversal con recolección de datos secundarios. La información fue recolectada a través de una historia clínica electrónica de la red de salud pública. **Resultados:** Se seleccionaron 68 pacientes, de los cuales 22 (32,4%) eran hombres y 46 (67,6%) eran mujeres. En el momento del diagnóstico, 48 (70,6%) pacientes tenían colitis y 20 (29,4%) enfermedad de Crohn. En estos, el patrón más común (30%) fue la afectación colónica, mientras que en la colitis, la mayoría (45,8%) presentó pancolitis. Los pacientes tenían, en promedio, 10 meses de síntomas antes del diagnóstico. El medicamento más utilizado en las enfermedades inflamatorias intestinales fue el aminossaicilato. Alrededor del 9% se sometió a cirugía. Ningún paciente murió. **Conclusión:** la mayoría de los hallazgos estuvieron en línea con los estudios nacionales actuales. Sin embargo, la heterogeneidad de la enfermedad y la falta de estudios parecen ser los principales factores de divergencias.

Descriptores: Enfermedades Inflamatorias Intestinales; Enfermedad de Crohn; Colitis ulcerosa; Epidemiología.

ORIGINAL

Introduction

Inflammatory bowel disease (IBD) is represented by Crohn's disease (CD) and ulcerative colitis (UC), with characteristics of behavior and progression. It is an immunomediated chronic inflammation, triggered by the convergence of epigenetic and environmental factors (smoking, Western diet and previous infections).[1-2]

CD has a higher incidence between the second and four decades of life. The UC, however, has a bimodal pattern, with a higher incidence between the second and third decades and between 60 and 80 years.[3] They are most common in northern Europe and America.[4] However, there is a trend of increased incidence in regions such as: Asia, Eastern Europe and South America.[2] Brazil is still considered a country of low incidence and prevalence, although it is evident the growth in the volume of consultations and hospitalizations for these diseases.[5-6]. The country is responsible for one of the largest increases of the incidence within Latin America, with an annual percentage increase of 11.1% in CD and 14.9% in UC, from 1988 to 2012.[6-7]

IDI represents an important public health problem. Due to its chronic clinical course and frequent exacerbations, there is interference in school, professional performance, impairment in quality of life and increased costs of health systems.[8]

Patients with CD diagnosed before the age of 20 have reduced life expectancy around 7 to 13 years. Although the risk of death related to UC is small, the increased risk of colorectal cancer in this spectrum of IDI is known to be higher, with an incidence rate of 1.58/1000 patients/year.[8] Thus, in an attempt to minimize the impacts of the disease and improve its care, there is a worldwide tendency to create specialized services for the adequate care of these patients.[9]

Epidemiological studies of IDI in industrialized countries are limited due to the lack of surveillance systems and records in reliable and unified databases, common in many Western countries. Another factor to be considered is the need to organize health systems in countries with continental dimensions and associated economic problems, such as Brazil, which hinders adequate records, resulting in few studies to be conducted and published.[10]

This study aims to evaluate the epidemiological profile of IDI in the population attended in a tertiary outpatient clinic in the southwestern region of the Federal District, from 2013 to 2020.

Method

This is a cross-sectional, descriptive epidemiological study with a temporal trend design, based on the collection of secondary data, in a service carried out at the outpatient clinic of the Regional Hospital of Taguatinga (HRT), of the Health Department of the Federal District (SESDF). The outpatient clinic is a reference for the Southwest Health Region (estimated population of 763,247 inhabitants – IBGE, 2014) and covers the municipalities

of Taguatinga, Águas Claras, Arniqueiras, Samambaia, Vicente Pires and Recanto das Emas. Taguatinga is the third most populous city in the Federal District (DF), with 222,598 inhabitants (data from the District Household Sample Survey, 2016).

The sample was defined in a non-probabilistic manner, for convenience, consisting of patients over 18 years of age, living in the Federal District, affected by Crohn's disease or ulcerative colitis, from 2013 to 2020. Minors were excluded, those diagnosed with malignancy, indeterminate colitis, patients who had lost follow-up and incomplete data from the medical records were excluded. The data were obtained by the TrakCare system®, version 2015, implemented in SES-DF in 2013.

The study investigated the following variables: age, gender, race, diagnosis (CD or UC), time from symptoms to diagnosis, extent of the disease (Montreal scale), place of residence, medications in current use and surgical treatment. Microsoft Excel 2010 software® was used for tabulation and data analysis. Descriptive measures of position and dispersion were calculated for quantitative variables, in addition to the crossing of these variables by Fisher's exact test. The Research Ethics Committee (CEP) of the Health Sciences Teaching and Research Foundation (FEPECS) approved this study under number 4,394,787.

Results

Between January 2013 and December 2020, 88 patients diagnosed with IDI were selected. Of these, 3 (three) lived outside the Federal District, 4 (four) had a diagnosis of indeterminate colitis, 10 (ten) incomplete data from the medical records and 3 (three) lost follow-up, therefore, they were excluded. The study included 68 patients, with a mean age of 42.3 years, ranging from 18 to 82 years. The mean age at diagnosis in CD was 44.9 years (standard deviation ±14.9 years), while those with UC was 41.6 (standard deviation ±15.5). For both, there was heterogeneity in the age distribution, and for UC the variability was higher. Table 1 presents the sociodemographic characteristics of the sample.

Table 2 identifies the percentage distribution of patients according to the phenotype of the disease, standardized by the Montreal classification. In colitis, the extent of the disease was considered, while in CD age at diagnosis, site of gastrointestinal tract involvement and behavior (inflammatory, penetrating or stenosan). For CD, 30% of the patients presented the standard "A3L2B1", while in the UC, 45.8% presented the "E3" pattern.

Regarding the time of symptoms before diagnosis, patients had, on average, 10 months of symptoms until diagnosis. Separately, patients with CD presented 11.4 months of symptoms (standard deviation ±10.7 and coefficient of variation 93.8%), while for colitis this mean was 9.3 months (standard deviation ±7.1 and coefficient of variation 76.2%). Information on temporal dispersion of symptoms before diagnosis illustrated the high variability of these data.

The most used drug in patients with UC was amiosalyllate in 97.9% of cases, followed by azathioprine in 29.1%. No patient used immunobiological therapy, even patients with pancolitis. In patients with CD, aminossaicylates

also corresponded to the most frequent and used therapy in 65% of patients, with 45% in association with azatioptine and the remaining 20% in the form of monotherapy. All patients using aminossaicylate as mono therapy had a pattern of colonic involvement (established by the Montreal classification), while those on combination therapy with azathioprine had equivalent distribution between slender, colonic or ileocolonic involvement patterns. Few used immunobiologicals, 20% of the total individuals with CD, three using adalimumab and only one using infliximab. Table 3 illustrates the distribution of drug use in UC and CD - according to the extent of the disease and the location of disease and phenotype involvement, respectively. Only 9% of the patients in the sample underwent surgery (one right colectomy by semiocclusive condition, two subtotal colectomy per neoplasm, one total colectomy per toxic megacolon and two drainages by perianal abscess). No patient had IDI-related death as an outcome.

Table 1- Sociodemographic characteristics of patients with IDI. Brasilia, 2013-2020.

Variables	N (%)
Gender	
Male	22 (32,4%)
Female	46 (67,6%)
Gender by type of disease	
Crohn's disease (CD)	
Male	8 (40%)
Female	12 (60%)
Ulcerative colitis (UC)	
Male	14 (29,2%)
Female	34 (70,8%)
Declared race	
White	16 (23,5%)
Browns	42 (61,8%)
Black	10 (14,7%)
Type of disease	
Crohn's disease	20 (29,4%)
Ulcerative colitis	48 (70,6%)
Place of residence in the Federal District by type of disease	
Crohn's disease	
Clear Waters	1 (5%)
Ceilândia	4 (20%)
Nocan of Emas	1 (5%)
Bottom Creek	1 (5%)
Fern	2 (10%)
Saint Mary's	1 (5%)
Taguatinga	10 (50%)
Ulcerative colitis	
Ceilândia	13 (27,1%)
Cruise	1 (2,1%)
Range	1 (2,1%)
Guara	1 (2,1%)

Recanto das Emas	4 (8,3%)
Riacho Fundo	1 (2,1%)
Samambaia	9 (18,7%)
Taguatinga	18 (37,5%)
Distribution by age group (in years) by type of disease	
Crohn's disease	
nov/20	2 (10%)
21-30	-
31-40	3 (15%)
41-50	6 (30%)
51-60	4 (20%)
61-70	2 (10%)
71-80	3 (15%)
81-90	-
Ulcerative colitis	
nov/20	3 (6,3%)
21-30	6 (12,5%)
31-40	5 (10,4%)
41-50	11 (22,9%)
51-60	9 (18,7%)
61-70	10 (20,8%)
71-80	3 (6,3%)
81-90	1 (2,1%)

Table 2- Percentage of patients according to disease extension and/or phenotype (Montreal Classification) and diagnosis. Brasilia, 2013-2020.

Age at diagnosis *	**Crohn's disease**
A1	-
A2	30%
A3	**70%**
Total	**100%**
Disease involvement *	**Crohn's disease**
L1	30%
L2	**45%**
L3	25%
Total	**100%**
Phenotype of the disease *	**Crohn's disease**
B1	**67%**
B2	19%
B3	14%
Total	**100%**
Extent of the disease **	**Ulcerative colitis**
E1	22,90%
E2	31,30%
E3	45,80%
Total	**100%**

* Classification of Montreal in CD - Age at diagnosis (A1 <16 years; A2 17-40 years; A3 >40 years); location (L1 terminal ileum; L2 colon; L3 ileocolonic; L4 high gastrointestinal tract); behavior (B1 infiamatory; B2 stouring; B3 fistulizer); p = Perianal disease modifier (p), added to B1-B3, if concomitant perianal disease; **Adapted Montreal classification (extension) in UC - E1: disease limited to the recurrent; E2: up to splenic fiexure; E3: proximal to splenic fiexure.

Table 3- Distribution of medications in UC and CD* - Second extent of the disease in UC (n/%); and CD - according to location/phenotype (n/%). Brasilia, 2013-2020.

Ulcerative colitis (48/70,6%)			
Medicine Disease extension (n/%)			
	Retite	**Left colitis**	**Pancolitis**
	(11/22,9%)	**(15/31,3%)**	**(22/45,8%)**
Oral aminossaicylate	**10/91%**	**15/100%**	**22/100%**
Monotherapy	**3/30%**	**6/40%**	**6/27,3%**
Associated topical aminossaicylate	**7/70%**	**8/53,3%**	**6/27,3%**
Azathioprine	**1/9,1%**	**1/9,7%**	**12/54,5%**
Monotherapy	**0**	**0**	**0**
Associated oral aminossaicylate	**1/100%**	**1/100%**	**12/100%**
Immunobiological	**-****	**-**	**-**

Crohn's disease (20/29,4%)						
Drug	**Location (n/%)**			**Behaviour (n/%)**		
	L1	**L2**	**L3**	**B1**	**B2**	**B3**
Oral aminossaicylate monotherapy	**-**	**4/100%**	**-**	**4/100%**	**-**	**-**
Oral amiososaliclate associated with azathioprine	**3/33,3%**	**3/33,3%**	**3/33,3%**	**8/89,9%**	**1/10,1%**	**-**
Azathiopronmonotherapy	**1/33,3%**	**2/66,7%**	**-**	**1/33,3%**	**1/33,3%**	**1/33,3%**
Immunobiological	**2/50%**	**1/25%**	**1/25%**	**1/25%**	**1/25%**	**2/50%**

*UC - Ulcerative colitis; DC - Crohn's disease./ ** Numerical data equal to zero, not resulting from rounding.

Discussion

In this study, UC was more prevalent than CD, a finding that corresponds to that found in national studies7 Parente et al. (2015) observed a diagnosis of UC in 60.3%, compared to 39.7% who had CD.[11]

There was a predominance of females with a percentage of 67.6%, but balance could have occurred with the increase of the sample.[7,11] The cause of the higher percentage of involvement in women is complex, but may be related to their greater entry into jobs in the industrial sector and, therefore, greater exposure to environmental risk factors involved in IDI. In addition, the women's population usually still seeks medical attention earlier.[12]

Of the ethnic distribution, 76.5% were black or brown and 23.5% were white. It is possible that these findings reflect Brazilian ethnic miscegenation. According to IBGE (2021) 54.8% of the Brazilian population declares itself black or brown. However, international studies report a higher prevalence in Caucasians compared to blacks and Asians.[13]

The age profile was slightly higher than that presented in most national epidemiological studies, but quite similar to the study in Campo Grande, where the average found was 46.01 years.[12]

The most common extension in UC was pancolitis (45.8%), followed by left colitis (31.3%) and proctitis (22.9%). These data differ with some studies in the literature. Relative et al. (2015) observed predominance of left colitis, followed by proctitis and pancolitis. However, for Arantes et al (2017), most patients had pancolitis (40.6%), followed by left colitis (35.6%) and proctitis (23.8%).[11-12] These results reflect the heterogeneity in the presentation of IDI, which deserves further studies to better define the predominant diagnostic extension in our country.

Regarding the phenotype in CD, 45% had involvement of the large intestine, 30% small intestine and 25% ileocecal involvement. Similarly, Arantes et al (2017) observed 78% of colonic involvement and 37% of the small intestine.[11-12]

As UC has predictable symptoms, there is less delay in diagnosis, around 2 to 4 months.[14-15] In DC the reverse occurs due to its heterogeneous and insidious presentation.[14] In most developing countries, this delay is more than 18 months. Studies show change in the course of the disease when there is early diagnosis (less than 18 months) and rapid start of treatment.[16] We observed a mean time of symptoms before the diagnosis of 10 months, and in CD it was 11.4 months and in the UC of 9.3 months. The mean duration of symptoms in UC was higher than expected in the literature. Although patients with CD were diagnosed early, the small sample in our study does not allow a positive association.

Monotherapy was the most used regimen in UC and the main drug used aminossaicylate, constituting the first line of treatment in mild to moderate cases.[16] Its use is well established in the maintenance treatment of the disease.[17-18] The great use of this class of drugs, even in patients with pancolitis (where, due to the extent and severity, it is more common to use other therapeutic classes - immunosuppressants and immunobiologicals) can be explained by the fact that the study site is not a reference center in IDI and, therefore, has patients with a lower severity profile.

The most used medication in the treatment of CD was also aminossaicylate, followed by immunosuppressive (azathioprine). This drug has its well-established use in maintaining moderate to severe Crohn's disease, both in the small intestine and in the colon.[19-20] The onset of action (12-16 weeks) makes it impossible to use alone in inducing remission of the disease and, therefore, there is an important association between immunosuppressants and corticosteroids.[21-22] Our study failed to record the number of patients who used corticosteroids. There was a high percentage of patients using aminossaicylates, which are not recommended in patients with CD. These were not superior to placebo, nor to induce and/or maintain remission, as well as do not act on the transmural genesis of the disease.[22] The profile of the specialists of the institution, not acting in the iDI scenario, may explain this result.

The low number of patients undergoing surgery (about 9% of the total) may have occurred due to the small follow-up sample, which makes it impossible to establish associations with phenotype and time of diagnostic delay. These and other divergences in our study were also expected by the

heterogeneity of the disease and its broad spectrum.

Conclusion

UC was more prevalent and the most common extension pattern of the disease was pancolitis, while in CD ileocolonic involvement was. Black or brown women and patients were the most affected, with a mean age of 42.3 years. Monotherapy with aminossaicylates was the most used therapeutic regimen for both CD and UC. The most commonly used combination therapy in CD was immunosuppressive therapy (azathioprine) with oral amysolicilate and in UC was topical with systemic salicylate. Most patients were asymptomatic at the last visit.

The methodological design represents a limitation, because it determines a moment in which factor and effect are observed at the same historical moment, but which can change over time. Thus, continuous monitoring of the database and prospective studies should be performed to characterize the behavior of this disease in the long term.

Aknowlegdment

This study was not granted to be done.

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