Clinical management of Crohn's disease in the elderly

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INTRODUCTION: *Crohn's Disease (CD) occurs in the elderly in 5 - 25% of cases. Aim of our study: to define the features of clinical presentation, diagnostic tools and therapy of CD in old age.*
METHODS: In the last ten years we observed in our Department 47 patients affected by CD. We divided them into two groups: A (42 patients < 65 years old) and B (5 patients ≥ 65 years old).
A retrospective survey evaluated the clinical presentation, diagnosis and treatments with relative outcomes.
RESULTS: *Group A: 23/42 patients (54,76%) were operated on. The most important indication for surgery was intestinal obstruction (15/42 pts, 65,2%). Small bowel resection was the most frequent surgical procedure (13/42 pts, 56,2%). Overall, 2/23 (8,7%) of the patients developed postoperative complications. There was no postoperative mortality. 8 pts (34,7 %) developed recrudescence of CD. Group B: 3 of 5 pts were operated on. Intestinal obstruction was the indication for surgery in all cases (100%). Two patients underwent small bowel resection (66,6%) and the third patient was submitted to an ileo-colic resection (33,3%). There was no mortality in the aftermath of surgery. In 2/3 operated patients (66,6%) recurrence occurred. All operations in the old patients were performed in urgency.*
CONCLUSIONS: *Surgery of CD in the elderly appears in our experience to have the same indications and procedures as in young patients. The postoperative morbidity, mortality and recurrence rates are similar in two groups even if we observed slightly higher postoperative morbidity rates in elderly due to the presence of comorbidity.*

KEY WORDS: Crohn's disease, Elderly, Ileal resection, Surgery

Introduction

Crohn's Disease (CD) is an inflammatory chronic process whose aetiology is unknown, most commonly located in the ileum or colon. CD involves the whole thickeness of the bowel wall with linear ulcerations and granulomas.
The overall incidence is 4-5 cases/100.000/year in USA and Europe [1]. The mean age at diagnosis is 31 years old, but there is a second peak of incidence in elderly (70 years old) with a percentage between 5-25% of the cases [2]. Some studies reported such particular features related to the site of CD in the elderly: a) colonic localization is more frequent in older patients than in young ones and b) Crohn's colitis of left-colon is more prevalent in old women [3]. The most frequent extra-intestinal manifestations, as in the young patients, are inflammatory processes of the joints.
Our aim of this study is to define the features of CD in the elderly according to our experience and the most recent studies in literature.

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Our series

In the last ten years we treated 47 patients with CD. The diagnosis was based on clinical, endoscopic and histological findings on the basis of endoscopy biopsy or a surgical resection specimens or on both, in accordance with the criteria outlined by Lennard-Jones [4].
We divided our series in two groups according to age: A) 42 patients < 65 years old; B) 5 patients> 65 years of age.
Group A: Patients presented with the following characteristics: M/F ratio = 1,5 : 1; mean age at diagnosis 30 years old (range 20-65 y.o.); a family history of CD in 12% of patients; acute onset in 3 cases (7,1%) (2 intestinal obstructions and 1 perforation). (Fig. 1) shows the topography of CD in our series (group A and B).
Pre-operative diagnosis was established trough classic diagnostic means (CT, MRI, endoscopy, ultrasonography and traditional radiology).
23/42 patients (54,76%) were operated on. Indications for surgery and relative surgical procedures are respectively in Table I and II.
The median postoperative hospital stay was 7 days (range 6 – 18); we had no postoperative mortality. 2/23 (8,7%) operated patients presented with the following complications: 1 anastomotic partial dehiscence treated with antibiotics, fasting and Total Parenteral Nutrition (TPN), and 1 wound infection managed with dressings and antibiotics.
Postoperative recrudescence occurred in 8 patients (34,7%) and it was treated successfully with corticosteroids and immunosoppressive therapy without recourse to reoperation.
19 patients, who were not operated on, presented mostly with a colonic disease. 14 cases with mild colitis were managed with amino-salicylates; 1 patient with distal colitis and a perianal fistula was managed medically with a good outcome with infliximab. Another 4 cases with distal ileitis were managed with fasting, amino-salicytates, corticosteroids, antibiotics and TPN.
Group B: 5 patients of this group presented with following characteristics: M/F ratio = 1:1,5; mean age was 68,3 y.o.; none of them had a family history of CD. 3 of 5 patients (60%) had an acute onset with intestinal obstruction after many months of diarrhoea and abdominal pain and they were operated on: 2 ileal resection (Figg. 2, 3) and one ileocolic resection (Fig. 4) (Table I-II). Mean postoperative hospital stay was 9 days, with no complications. In the other 2 cases we observed in one patient mild Crohn's colitis successfully treated with mesalazine; the other case, who had already had an operation for Crohn's ileal stenosis, presented with a perianal

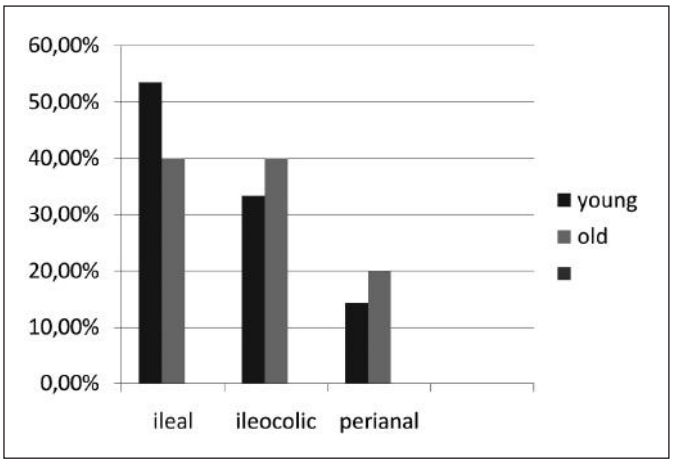

Fig. 1: Localization of CD in two groups of patients.

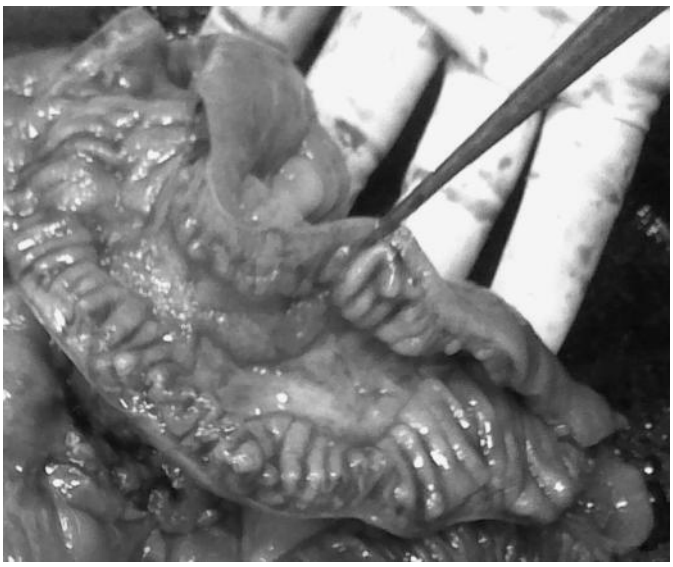

Fig. 2: Case n. 1: ileal resection.

TABLE I - *Indications to surgery in two groups of patients*

Indications	Group a	Group b
Intestinal obstruction	15 (65,2%)	3 (100%)
Intestinal fistulas	2 (8,7%)	0
Free perforation	1 (4,3%)	0
Perianal fistulas	5 (21,7%)	0
Total	23	3

TABLE II - *Surgical procedures in two groups of patients between 2000-2010*

Procedures	Group a	Group b
Stricturoplasty	5 (21,7%)	0
Small bowel resection	13 (56,2%)	2 (66,6%)
Ileocolic resection	0	1 (33,3%)
Insertion of a seton	5 (21,7%)	0
Total	23	3

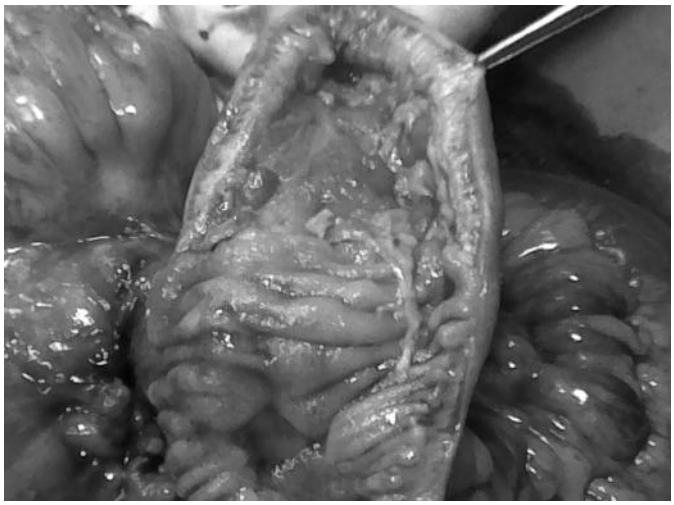

Fig.3: Case n. 2: ileal resection.

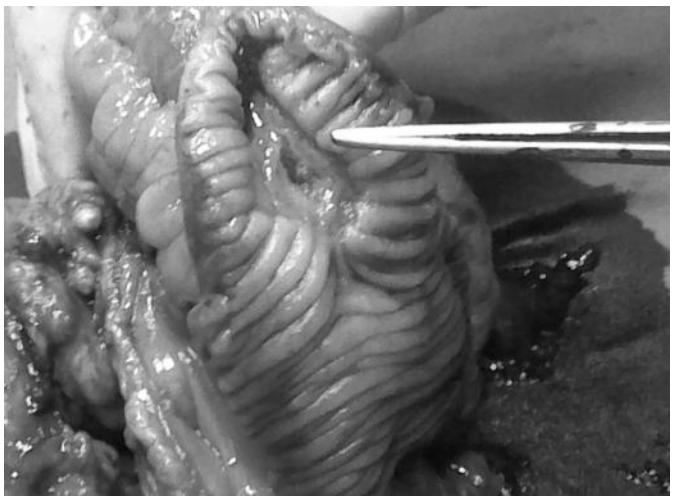

Fig. 4: Case n. 3: ileo-colic resection.

fistula. All 5 patients are still alive and in good clinical condition at follow-up. In 2/3 operated patients (66,6 %), recurrence occurred but it did not require surgery and was treated with corticosteroids and mesalazine with complete regression.

Discussion

We have tried to define particular features related to symptoms, diagnostic criteria and therapy of CD in the elderly by analyzing our series and the literature.

CD presents in the elderly with variable symptoms: diarrhea, abdominal pain and loss of weight are the most frequent symptoms. Fever and objective report of palpable mass are, on the contrary, less frequent than in young ones [5]. Because of non-specific presentation, CD in the elderly is often not diagnosed for a long time and clinicians tend to suspect diseases that are more frequent in the old patient (i.e. diverticulitis, ischemic or infective colitis and colorectal cancer). For this reason, the delay of diagnosis is on average 18 months after the onset of first symptoms and in our experience the delay of diagnosis was 7-8 months in 3 pts (60 %). Moreover, acute complications (mainly occlusive and hemorragic) are more frequent in the elderly because of this diagnostic delay.

In our series M:F ratio was 1:1,5 in old patients and is supported by other authors [6]. Moreover, it highlighted the relatively low frequency of a family history of CD in the elderly compared to the younger group (3% vs 12%) [7]. In the elderly the most common localization is ileal (45%); followed by colic (30%) and perianal (25%) [8].

The diagnostic approach is the same both in old and in the young patient. Nowadays we can use CT, MRI, videocapsule, transabdominal and transrectal ultrasonografy, double contrast barium enema, colonscopy [9].

The therapy of CD is multimodal, even if most authors agree that it has to be pharmacologic as far as possible. The role of surgery in CD is limited to specific indications: acute complications (obstructive, hemorrhagic and perforative), complex fistulas or refractoriness to drugs [10-12]. The use and indications of these drugs are not different in young and old patient (salicylates, corticosteroids, immunosoppressors and infliximab). Many studies indicate greater susceptibility to side effects to these drugs in the elderly, particularly to corticosteroids (hypertension, edema, glycemic decompensation, bone fracture) and to infliximab (lupus, polmoniti, sepsis) that certainly depends on typical comorbodity of this category of patients [13,14].

According to Wagtman et al., the rate of operated on patients is substantially similar in old and young ones (83% vs 77%) [7,15]; while Polito et al. observed a lower incidence of surgical procedures in old patients than in young ones (55.3% vs 70.6%) [16]. In our series we didn't find significant differences between two groups (54.7% vs 60%).

The ileal localization of CD was the most frequent in operated on old patients as in young ones, such as confirmed in literature [17].

In our experience all surgical procedures for CD in the elderly were carried out urgently compared to 7,1% for young patients.

It is recognized that surgical procedure should be as conservative as possible. Our experience is similar to other authors and the most frequent surgical procedures are ileal, ileocolic and segmentary colic resection, and stricturoplasty which permits preservation of bowel. In perianal CD many authors prefer conservative surgery (insertion of a seton for fistula, drainage of abscess, dilation of rectal stenosis) associated with biologic drugs [18].

CD in the elderly represent an interesting opportunity for laparoscopic surgery after accurate selection of

patients, especially cause of disease localization which is most frequently ileocecal where laparoscopic access is quite easy. Moreover, according to some randomized and controlled trials, laparoscopic surgery in CD presents with lower rate of complications, shorter postoperative hospital stay and lower costs than open surgery [19-21].
The high postoperative morbidity rate in the elderly is mainly due to systemic complications, mainly cardiac (18,2% vs. 0,8%) and respiratory (18,2% vs. 2,4%), that are very common in elderly and arise from pre-existent pathologies. There is no different rate of specific complications (anastomotic dehiscence or leak, etc.) between younger and older patients [8,22].
In the same way, postoperative mortality is higher in the elderly (1,3% - 9,5% vs. 0,8% - 2,6%) cause of two main reasons: presence of comorbidity and emergency surgery for acute complications [23].
The age at diagnosis is not a risk factor of recurrence [24]. This is a well-known phenomenon of CD: in most cases traditional drugs and TNF- α – blockers may prevent and treat recurrences [11,25].

Conclusions

CD is not rare in the elderly and for its aspecific symptoms it could be considered such as diagnostic hypothesis in old patient with abdominal symptomatology too. CD in the elderly doesn't need specific diagnostic approach.
The therapy of CD has to be mainly pharmacologic with interesting perspectives offered by new immunomodulatory drugs. Surgery has always a major role in acute complications, in complex fistulas and in refractoriness to medical therapy.
Surgical results are acceptable considering morbidity and mortality rates of old patient that are higher than young patient mainly for presence comorbidity.
Postoperative recurrence is similar in young and old patients and its treatment is mainly medical with immunosuppressors and TNF– α – blockers.

Riassunto

INTRODUZIONE: La Malattia di Crohn (MC) si verifica nell'anziano nel 5- 25 % dei casi. L'obiettivo del nostro studio è stato quello di definire le peculiarità della presentazione clinica, dell'iter diagnostico e della terapia della MC in età geriatrica.
MATERIALI E METODI: Negli ultimi dieci anni abbiamo osservato presso il nostro Dipartimento 47 pz affetti da MC. Abbiamo diviso la nostra casistica in due gruppi: A (42 pz < 65 anni) e B (5 pz ≥ 65 anni).
Un'analisi retrospettiva ha valutato la modalità di presentazione clinica, le metodiche diagnostiche e i trattamenti con i relativi risultati.
RISULTATI: **Gruppo A**: 23/42 pz (54,76 %) sono stati operati. La più importante indicazione alla chirurgia è stata l'occlusione intestinale (15/42 pz, 65,2%). La resezione del piccolo intestino è stata la procedura chirurgica più spesso utilizzata (13/42 pz, 56,2 %). 2/23 (8,7 %) pz operati hanno complicanze postoperatorie. Non c' è stata mortalità postoperatoria. 8 pz (34,7%) hanno avuto una recidiva postoperatoria. **Gruppo B**: 3 dei 5 pz sono stati operati. L'occlusione intestinale è stata l'indicazione all'intervento chirurgico in tutti i casi. Due pz sono stati sottoposti a resezione del piccolo intestino (66, 6%) e il terzo a resezione ileo-colica (33,3%). Non c' è stato nessun caso di morbidità e mortalità postoperatoria. In 2/3 pz operati (66,6%) si è verificata una recidiva. Tutti gli interventi sono stati eseguiti in regime d' urgenza.
CONCLUSIONI: La chirurgia della MC nell'anziano presenta le stesse indicazioni e procedure del paziente giovane. I tassi di morbidità, mortalità e recidiva sono simili nei due gruppi anche se noi abbiamo osservato una morbidità e una mortalità leggermente più alta nell'anziano a causa della comorbidità tipica di tale paziente.

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