

WHAT ETIOLOGICAL PROFILE OF ILEITIS IN MOROCCO?

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SUMMARY

Introduction: Terminal ileitis is a crossroads of several etiologies. the diagnostic orientation is essentially based on the clinical context supported by the endoscopic and histological aspect. the improvement of knowledge and the development of techniques for exploring the intestine have allowed the description of a large number of pathologies that can cause isolated ileal or right ileocolonic damage. **Methodology:** we retrospectively analyzed the records of patients with ileal involvement during the study period which runs from January 2016 to April 2019; collecting 59 cases of ileal disease associated or not with colonic disease and the clinical, endoscopic, histological characteristics as well as the etiological profile. **Results:** The sex ratio W/M was 1.2, the average age was 38 years (from 17 to 75 years). **In the history:** a history of Crohn's disease in 16 cases (27%), hemorrhagic rectocolitis in 7 cases (11.86%), ankylosing spondylitis in 4 cases (6.8), chronic anemia in 2 cases (3.4%), taking non-steroidal anti-inflammatory drugs in 1 case (2%), The clinical presentation of the ileal attack was: chronic diarrhea in 17 cases (29%) which is the most frequent reason for consultation, associated with abdominal pain in 15 cases (25%) followed by Koenig's syndrome in 12 cases (20%), among 59 cases; 17% were admitted in a table of complication, fortuitous discovery of ileitis in 3 cases (5%) and constipation in 2 cases (4%). Total ileocolonoscopy had objectified: Isolated ileal involvement in 4 cases (7%), ileocolonic involvement in 53 cases (90%) and extensive colonic involvement in 2 cases (3.4%) with an ulcerated appearance in 40 cases (67.8%), a stenosing appearance in 15 cases (25%) and a pseudo-tumor in 1 case (2%). All patients underwent a biopsy. Based on clinical, biological, endoscopic and histological criteria: the main etiologies were: Crohn's disease in 48 cases (81.35%), ileocecal tuberculosis in 3 cases (5.1%), reflux ileitis in 2 cases (3.4%), taking NSAIDs in 2 cases (3.4 %), undetermined ileitis in 2 cases (3.3%), lymphoma in 1 case (1.7%), Peutz jeghers syndrome in 1 case (1.7%). **Conclusion:** Our study shows that isolated ileal involvement represents 6.8% and ileocolonic in 89.83%. Crohn's disease remains the most frequent cause followed by ileocecal tuberculosis in our country.

KEYWORDS: Ileitis, chronic diarrhea, etiologies of ileitis, Crohn's disease, tuberculosis.

INTRODUCTION

Ileitis is an inflammation of the last part of the small intestine; which can be revealed by an evocative clinical picture (pain in the right iliac fossa associated with fever and / or diarrhea) associated with a modification of the terminal ileum in imaging (ultrasound, scanner or entero MRI), Ileocolonoscopy is not a first-line examination and should be reserved for patients with persistent symptoms, while the rest of the etiological assessment is negative. Ileitis is a situation that challenges the clinician because it poses both a problem of etiological diagnosis but also of therapeutic management. In Morocco very few publications on the etiologies of terminal ileitis, but it seems that the main etiologies are tuberculosis and Crohn's disease.

Objective of this study is the review of all the clinical, endoscopic, histological and evolutionary data of our series of chronic ileitis; the aim is to draw up the etiological profile of these ileitis and diagnostic approach in our patients.

Patient and method

This is a retrospective study aimed at analyzing all patient records admitted to the hepato-gastroenterology department between the study period which runs from January 2016 to April 2019, for exploration of a chronic ileitis.

The diagnosis of chronic ileitis was retained on clinical, biological, imaging, endoscopic and histological criteria.

We analyzed both the epidemiological data, the different clinical, endoscopic and histological characteristics; in order to deduce the etiological profile in these patients.

RESULT

We collected during the study period which extends from January 2016 until April 2019 59 cases of chronic ileitis. the mean age was 38 (range 17-75). The sex ratio W/M was 1.2 with a slight female predominance 32 cases (54%), the average duration of symptoms was 3 months. In the history of our patients; a history of Crohn's disease was found in 16 cases (27%), hemorrhagic rectocolitis in 7 cases (12%), ankylosing spondylitis in 4 cases (7%), chronic anemia in 2 cases (3.4%), taking non-steroidal anti-inflammatory drugs in 1 case (2%). The clinical presentation of ileal involvement was chronic diarrhea in 17 cases (29%) which is the most frequent reason for consultation associated with abdominal pain in 15 cases (25%), followed by Koenig's syndrome in 12 cases (20%) among 59 cases; 10 cases (17%) were admitted in a table of complication, 3 cases (5%) of fortuitous discovery of ileitis and 2 cases (4%) of constipation. We

noted a biological inflammatory syndrome with an average value of the CRP was 45 mg / l with a minimum value of 0 and maximum of 352 objectified in the event of peritonitis by perforation of the hail, phthysiological assessment was carried out in all our patients with IDR + in 4 cases (7%). A thickening of the last ileal loop on the imaging was objectified in 57 cases (96%); the thickening was associated with a stenosis of the last ileal loop in 4 cases (7%) including 2 cases (3%) of tumoral appearance, with a deep collection in 2 cases (3%) and an enterocutaneous fistula in 1 case (2%). Total ileocolonoscopy had objectified: Isolated ileal involvement in 4 cases (6.8%), ileocolonic involvement in 53 cases (89.83%) and extensive colonic involvement in 2 cases (3.4%) with an ulcerated appearance in 40 cases (67.79%), a stenosing appearance in 15 cases (25.24%) and a pseudo-tumor in 1 case (2%). histology was contributory in 18 cases (30%). Evolution was favorable in most cases after the etiological treatment. The results of the clinical and paraclinical study are illustrated in Table I.

Table 1: Main clinical and paraclinical characteristics of terminal ileitis.

Settings	N (%)
Middle age	38 (17-75)
Sex ratio W/M	1.2
Antecedent	<ul style="list-style-type: none"> - crohn's disease 16(27%) - hemorrhagic rectocolitis 7 (12%) - ankylosing spondylitis 4 (7%) - non-steroidal anti-inflammatory drugs 1(2%)
Circumstances of discovery	<ul style="list-style-type: none"> - chronic diarrhea 17 cases (29%) - abdominal pain 15 cases (25%) - koenig syndrome 12 cases (20%) Complication in 10 cases (17%) : - Hail perforation 2 cases (3.4%) - collection 2cases (3.4%) - fistula 6 cases (10%) - constipation 2 cases (4%) - fortuitous discovery 3 cases (5%)
Circumstances of discovery	3 months
Radiological data	<ul style="list-style-type: none"> - thickening of the thickening of the last ileal loop in 57 cases (96%) associated with: - a stenosis in 4 cases 7% - a collection in 2 cases “3% - a fistula in 1 case 2%
Endoscopic data	<ul style="list-style-type: none"> - Ulcerated 40 (68%) - Stenotic 15(25%) - Pseudotumor 2 (3.4%)

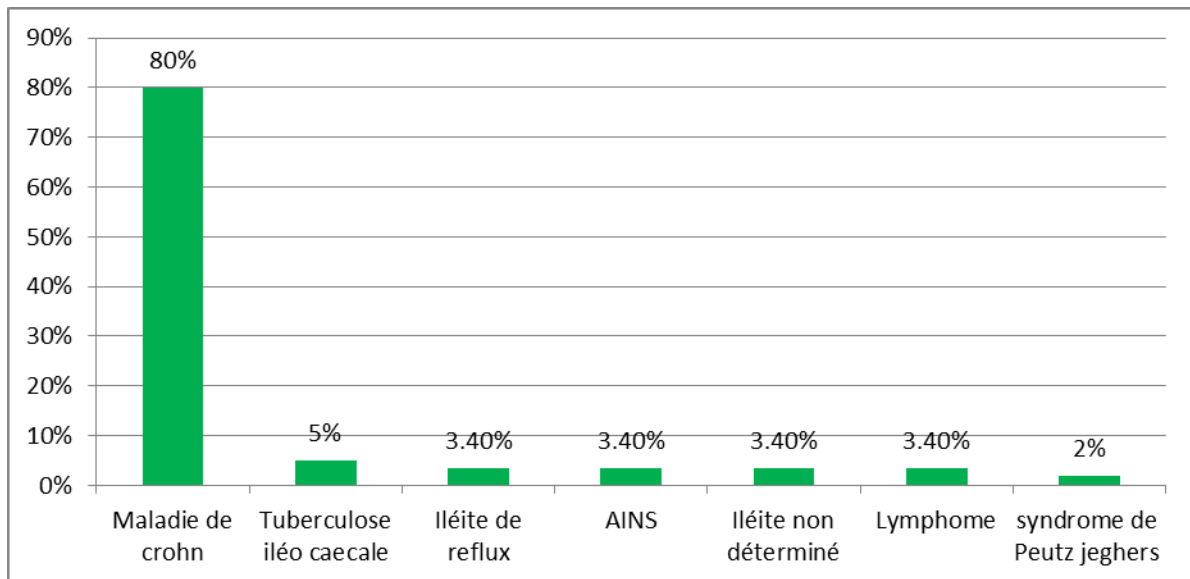


Figure 1: etiological profile (clinical, endoscopic, radiological and histological).

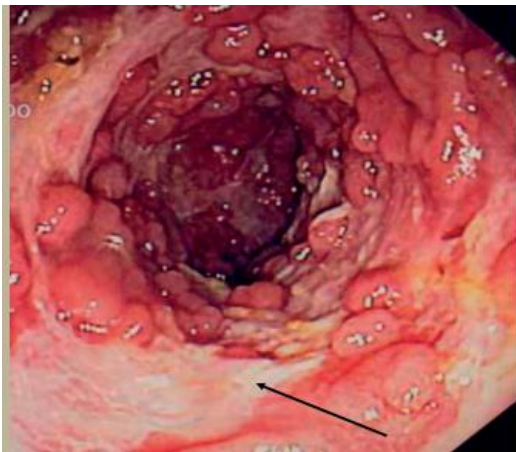


Image 1: ileal lesions of Crohn's disease: Ulcerations creusantes (flèche) with intervalle
 Ulcerations creusantes (flèche) with intervalle



Image 2: Caecal ulcerative process
 (gastrology service, CHU fès) (service de gastrologie, CHU fès)

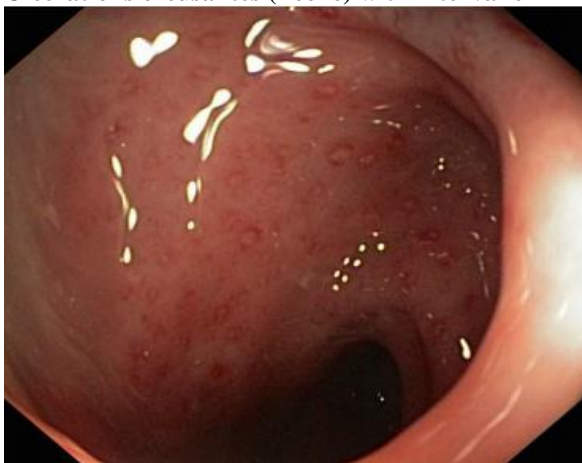


Image 3: edematous erythematous mucosa site of aphthoid ulcerations.



image 4: pseudopolypoid aspect of the Colonic mucosa.

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DISCUSSION

Terminal ileitis poses a real problem of etiological diagnostic approach given the richness of the lymphoid tissue; Our study showed that the most common cause remains Crohn's disease followed by intestinal tuberculosis; in our epidemic context since Morocco still records about 36,000 new cases/year according to the latest WHO recommendation.^[1]

In the Spanish study, the duration of symptoms before consultation did not depend on the etiology of the ileitis (24 hours for infectious causes, 72 hours for Crohn's disease, $p = 0.55$).^[2] in our study, the average duration of symptoms was 3 months and in the Z. touimi et al study was 35 days.

History taking of similar past episodes was strongly associated with the diagnosis of Crohn's disease. A familial autoimmune background, symptoms related to a possible extra-intestinal manifestation (cutaneous, joint, oral aphthosis) can lead the way^[3], in our study the anamnesis collected a history of Crohn's disease in 16 cases (27%), hemorrhagic rectocolitis in 7 cases (11.86%), ankylosing spondylitis in 4 cases (7%), chronic anemia in 2 cases (3.4%), taking non-steroidal anti-inflammatory drugs in 1 case (2%), with clinical presentation was dominated by chronic diarrhea in 17 cases (29%) which is the most frequent reason for consultation, associated with abdominal pain in 15 cases (25%) followed by Koenig's syndrome in 12 cases (20%), among 59 case ; 17% were admitted in a table of complication, constipation in 2 cases (4%) and fortuitous discovery in 3 cases (5%); these results agree with those reported by another study.^[4]

In our study, the mean CRP value was 45 mg/l (extreme 0 to 352 mg/l was objectified in the case of peritonitis by perforation of the hial). Thickening of the last ileal loop on imaging was objectified in 57 cases (96%). On the imaging, the thickening was associated with a stenosis of the last ileal loop in 4 cases (7%) including 2 cases (3%) of tumoral appearance, with a deep collection in 2 (3%) cases and entero fistula skin in 1 case (2%); These findings agree with the results of the Z.TOUIMI et AL study.^[4]

Total ileocolonoscopy had objectified: Isolated ileal involvement in 4 cases (6.8%), ileocolonic involvement in 53 cases (89.83%) and extensive colonic involvement in 2 cases (3.4%) with an ulcerated appearance in 40 cases (67.79%), a stenotic appearance in 15 cases (25.24%) and pseudotumor in 1 case (1.7%). On the other hand, in the study by Touimi ET al^[4] valvular stenosis in 16 cases (25.8%) first followed by ulcerated ileitis in 11 cases (17.8%), a pseudo-tumor aspect of the ileo-valvule cecal in 6 cases (9.67%), congestive ileitis in 3 cases (4.83%), nodular ileitis in 2 cases (3.2%).

On the etiological level, by comparing our series with Western data which proves that Crohn's disease is more

frequent and that tuberculosis remains a rarity in Western countries, but it must be mentioned in a patient from an area highly endemic, an immunocompromised patient or living in precarious sanitary conditions.

Our series showed that the main etiologies were: Crohn's disease in 48 cases (81.35%), ileocecal tuberculosis in 3 cases (5.1%), reflux ileitis in 2 cases (3.4%), taking non-steroidal anti-inflammatory drugs in 2 cases (3.4%), undetermined ileitis in 2 cases (3.3%), lymphoma in 1 case (2%), Peutz jehgers syndrome in 1 case (2%). These results are close to the data in the literature, especially for the predominance of Crohn's disease; in France, acute ileitis is the first manifestation of Crohn's disease in one third of patients^[5] with isolated terminal ileal involvement in 21 % of phenotypes at diagnosis.^[6]

And also in the study, Z. Touimi et al (4) Crohn's disease remains the main etiology with a percentage of 69.35% followed by ileocecal tuberculosis in 6 patients (9.68%) as in our study given the context epidemic of tuberculosis in our country; on the other hand in Western studies; tuberculosis is a rare condition; but remains the main differential diagnosis with Crohn's disease, especially in areas where tuberculosis is endemic; the infectious origin apart from infection by mycobacterium tuberculosis remains the most common cause in the Spanish study by Garrido et al; with 33.3% of patients consulting for acute ileitis, followed by Crohn's disease in 12, 1% of patients and 9.1% of patients presented with rarer or non-digestive causes (gynecological causes, intestinal lymphoma, congenital anomaly, perforation of a colonic diverticulum).^[2]

In the older Danish series, 17% (9 patients) of ileitis remained undiagnosed at the end of hospitalization. After a median follow-up of 13 years, 3 diseases were diagnosed in these 9 patients in the year following the episode of acute ileitis, on the other hand in our study 2 cases (3.3%) of undetermined ileitis remained stable at years without progression to Crohn's disease. Consequently, acute idiopathic ileitis remains among the most common causes of acute ileitis with a rapidly favorable course.^[6]

In the light of these data and the comparison of our results with the data of the literature; it turns out that terminal ileitis is a situation that requires a systematic approach to determine the cause; This approach includes a very precise interrogation with a biological, phthysiological assessment is systematic in our context, imaging with total endoscopy to better characterize these lesions of ileitis in order to perform the biopsy for etiological confirmation.

CONCLUSION

A good etiological questioning with a good orientation of the biological, radiological, endoscopic and histological examinations; helps to find the etiology of ileitis.

After following this previous approach, it was concluded that Crohn's disease remains the most common cause followed by ileocecal tuberculosis.

REFERENCES

1. National strategic plan for the prevention and control of tuberculosis in Morocco 2018-2021. <https://www.smmg.ma/publications/documents/1-programme-national-de-lutte-contre-la-tuberculose/file.html> consulted on 09/10/2020 at 9:00 p.m.
2. Garrido E, Sanroman AL, Rodriguez-Gandia MA, et al. Optimized protocol for diagnosis of acute ileitis. *Clin Gastroenterol Hepatol*, 2009; 7: 1183-8.
3. Guillaume Bouguen, How to deal with acute ileitis; postu, 2017.
4. Toumi Najoua et al. clinical presentation and etiological profile of terminal ileitis of radiological discovery, 2014.
5. Van breda vriesman AC, Puylaert JB. Mimics of appendicitis: alternative nonsurgical diagnoses with sonography and CT. *AJR Am J Roentgenol*, 2006; 186: 1103-12.
6. Molinité F, Gower-Rousseau C, Yzet T, et al. Opposite evolution in incidence of Crohn's disease and ulcerative colitis in Northern France (1988-1999). *Gut*, 2004; 53: 8436-8.
7. Jess T, Jess P. Acute terminal ileitis, yersiniosis, and Crohn's disease: a long-term follow-up study of the relationships. *Eur J Intern Med*, 2001; 12: 98-100.