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Adultceliac disease: correlation between Endoscopic, histological and biological appearance

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ABSTRACT

Introduction: *The diagnosis of celiacdisease is based on the positivity of Serological markers, histological criteria as well as the response to the gluten-free diet. The aim of our work is to study the correlation between endoscopic, histological and serological appearances.* ***Patients and method:*** *This is a retrospective descriptive studycarried out within 5-year period from October 2010 to October 2016. The 25 patients in our Collected series in the department of hepatogastroenterology of CHU Mohammed VI have benefited from an assessment Serology, an endoscopy of the upper digestive track with biopsies and anatomopathological study of the biopsies.* ***Results:*** *The meanage of our patients was 33 years [16-50],we noted a clear female predominance. Chronicdiarrhea was the main indicator Foundin 70%. upper digestive track endoscopy was normal in 40% of cases, showing duo denal fold serasedin 36% of cases, and an aspect of duodenitisin 24% of cases. The anatomo-pathological study of the biopsies carried out during the digestive endoscopy noted a total villous atrophyin 60% of cases, in 40% of cases it was an atrophy. Subtotal of the villus. Serologically anti-transglutam in aseanti bodies were positive in 90% of cases, where as anti-endomysium antibodies were present in 65% of cases.The study of correlation between the different erological, endoscopic and Histological aspect is not significant in our series.****Conclusion:*** *In our series, thereis no significant correlation between the endoscopic appearance, serological profile and degree of villousatrophy; This can be explained by the small number of people for the study, hence the interest of other prospective studies with a large work force.*

Keywords : Caeliacdisease; Correlation; Endoscopy; Serology; histology.

INTRODUCTION

Celiac disease (TM) is an inflammatory disease of the digestive tract occurring in a particular genetic field; It produces a malabsorption syndrome due to intolerance to a fraction of gluten (gliadin). It usually results in villous atrophy of the small intestine, beginning at the level of the proximal hail, and possibly extending to its totality, regressive after exclusion of gluten, major cereals (wheat, rye, barley and uncertain oats) [1]. In adults (affects one person in 2000 in France), the disease can occur under atypical pictures: rheumatic syndrome, isolated anemia, disorder of

coagulation. It is estimated that one in 100 people can develop this disease in Europe. Prevalence appears to be identical in the North American continent. In France, only 10 to 20% of cases are now diagnosed. Since 2012 the press is increasingly talking about intolerance to gluten in people who are not. This has resulted in a "fashion" all gluten-free. [2] Today, this is one of the most common digestive diseases and it is important not to confuse gluten intolerance with allergies Wheat or gluten, which involve different immune mechanisms, particularly reactions to IgE (eg angioedema). His knowledge has progressed considerably over the last twenty years, but the only known treatment remains the total elimination of gluten from the diet. The diagnosis of celiac disease is based on a combination of clinical, serological and histological arguments [4].

The aim of our work is to study the correlation between the endoscopic, histological and serological aspect in adult Caeliaque patients.

MATERIALS AND METHOD

We conducted a five-year retrospective study (October 2010 to October 2016) of 25 cases of celiac disease Collected at the Hepato-Gastroenterology Department of CHU Mohammed VI.

• The data collection included socio-demographic characteristics, endoscopic data, histological findings and serological marker results.

• The statistical analysis concerned the description of the patient characteristics (numbers and percentages), the percentage comparison (exact Fisher test) and the degree of significance was set at 0.05

RESULT AND DISCUSSION

Over the study period, 25 cases of Caeliac Disease were included. Their mean age was 30.75 years with extremes of 16 to 50 years and a clear female predominance was observed (Sex ratio F / H: 5.25 (Figure 1).) As clinical signs revealed chronic diarrhea In 70% of cases, followed by anemic syndrome and polyarthralgia in 50% and 30% of the cases respectively (Figure 2) .The upper endoscopy was normal in 40% of cases, it showed eroded duodenal folds In 36% of cases, and one aspect of duodenitis was found in 24% of the cases (duodenal biopsies were carried out in all our patients (100%) whose pathological study had recovered The total villous atrophy in 15 patients, ie 60% of the cases, and subtotal villous atrophy in 10 patients, ie 40% of the cases (Figure 4) Serologically, anti-transglutaminase antibodies were positive in more than 90% , Whereas the anti-endomysium antibodies In 65% of cases (Figure 5). Our 25 patients (100%) had villous atrophy (either total or subtotal) whereas only 15 patients (60%) had endoscopic lesions. All 15 patients with total villous atrophy had positive serology as well, while among the 10 patients with subtotal villous atrophy, only 7 had positive serology (Table 1). The study of the correlation between the serological profile and the degree of villous atrophy one (P = 0.052) in our study (Table 1). Of the 15 patients with total villous atrophy only 9 had endoscopic lesions, or 60%, while 6 had endoscopic lesions among the 10 patients with subtotal villous atrophy. The study of the correlation between the endoscopic aspect and the degree of villous atrophy was not significant (P = NS) (Table 2).

Discussion:

Caeliaque disease is defined by precise criteria such as gluten intolerance, visible villous atrophy on small bowel biopsy, restoration of villous architecture through the gluten-free diet, clinical and histological relapse to the reintroduction of gluten ; It is an autoimmune enteropathy induced by the ingestion of gluten (wheat, barley, rye) in genetically predisposed subjects [5]. Its frequency is probably underestimated and is 1/100 to 1/300 in Europe with a clear female predominance, confirmed by our series. It is a bimodal disease (40-50 years F / 50-60 years H) and latent forms are numerous [2, 6]. HLA-DQ2 (95%), HLA-DQ8 (5%) (NB: The subjects neither DQ2 nor DQ8 have

no MC). According to a recent synthesis The prevalence of CD is almost 1% worldwide. [7] Usually, CD is in the form of chronic diarrhea, abdominal pain and malabsorption. The small intestine suffers atrophy and inflammation of the mucosa, which improve when the person adopts a gluten-free diet (RSG). Children often have diarrhea, abdominal distention and poor development; In adolescents and adults, mild gastrointestinal symptoms lasting for years are commonly observed. [7, 8] For the detection of celiac disease, the anti-tissue transglutaminase immunoglobulin A antibody (IgA) assay is The test of choice, however, it is necessary to measure the serum total immunoglobulin A (IgA) in order to rule out a selective IgA deficiency and avoid false negatives; In our 25 patients Caeliaque more than 90% had positive serological markers. Patients with positive serological tests should be recommended to a gastroenterologist to undergo endoscopic small bowel biopsies to confirm the diagnosis. The typing of DQ2 and DQ8 human leukocyte antigens may help to rule out the diagnosis [9]; With the key message that "a gluten-free diet should not be undertaken until the diagnosis of celiac disease is confirmed". Our study aimed at finding a correlation between the endoscopic aspect, the serological profile and the degree of villous atrophy did not find a significant correlation. This lack of correlation could be explained either by the small size of our non-representative workforce or by the lack of correlation between these MC parameters. However, other studies with the same aim were carried out; Thus, the study by Querrach Jihane et al, including 120 patients followed for Caeliaquen's disease, had no correlated correlation between the endoscopic aspect and the degree of villous atrophy [10], as was the study carried out by Fathallah et al published in 2009 Had no correlation between the endoscopic aspect and the degree of villous atrophy (Table 3) or correlation between serological and histological profile (Table 4) with ($P = 0.02$) And ($P = 0.0001$) [11]. These findings are in line with those published in the Indian Journal of Gastroenterology (Table 5), which also did not find any significant correlation between the endoscopic, serological and histological aspects. On the other hand, the work carried out by Bousfiha Nora et al [13] supports a correlation between the degree of villous atrophy and the endoscopic aspects evoking the celiac disease. A celiac disease had normal endoscopy, conclude that histology remains the pillar of the positive diagnosis of celiac disease; This was confirmed by our study where 40% of the endoscopies were normal. In CT screening, patients with a positive serological test should be recommended to a gastroenterologist for endoscopic small intestine biopsies to confirm the diagnosis. The complete and definitive exclusion of gluten Diet is the basis for the treatment of celiac disease with the objectives of clinical cure and prevention of complications of celiac disease. Its principle is simple: remove all foods containing at least one of the 4 toxic cereals and substitute other cereals, mainly rice and maize. One study suggested that oats were well tolerated in the short term, but this must be confirmed in the long term [14]. The MC is the only clinical situation in gastroenterology, the treatment of which is based on a simple dietary prescription in principle, the gluten-free diet, but difficult to implement given the social constraints it imposes.

CONCLUSION

Our work is not in favor of a correlation between the endoscopic aspect, the serological profile and the degree of villous atrophy unlike others. Endoscopy according to our data would not be a predictive factor of celiac disease hence the interest of other prospective studies more broadly effective.

Links of interest: none

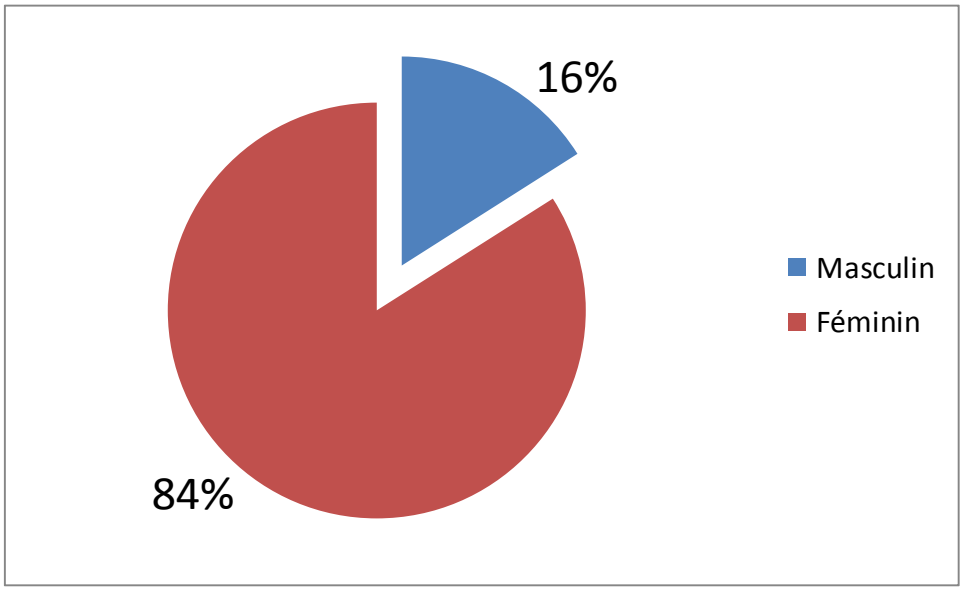

Fig. No. 1: Distribution of Patients by Sex

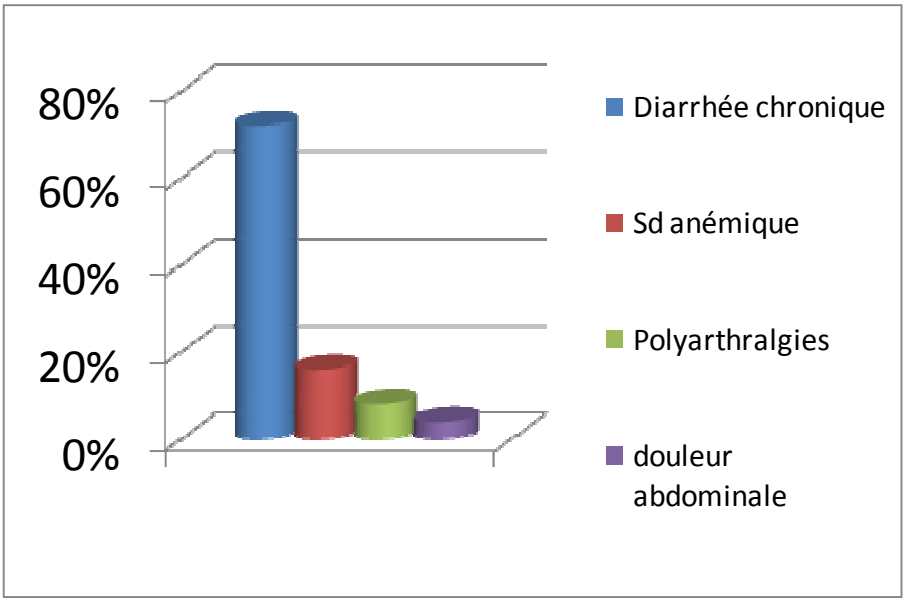

Fig. No. 2: Distribution according to the symptomatology revealing

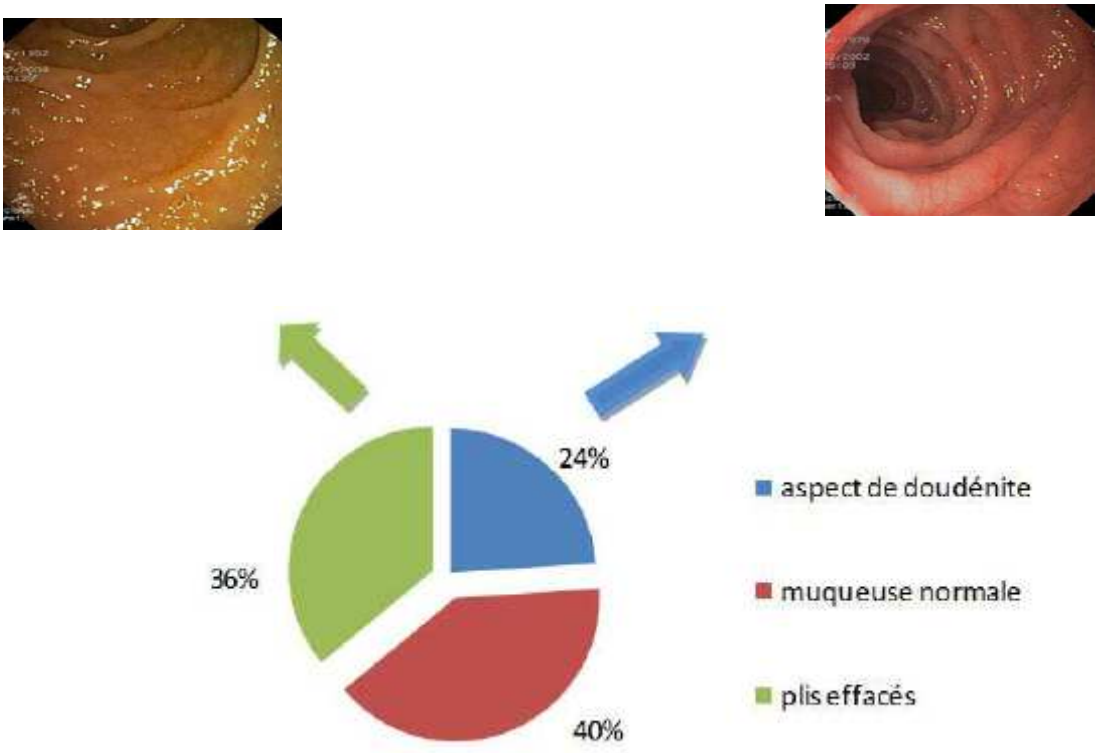

Fig. No. 3: Endoscopic aspects found

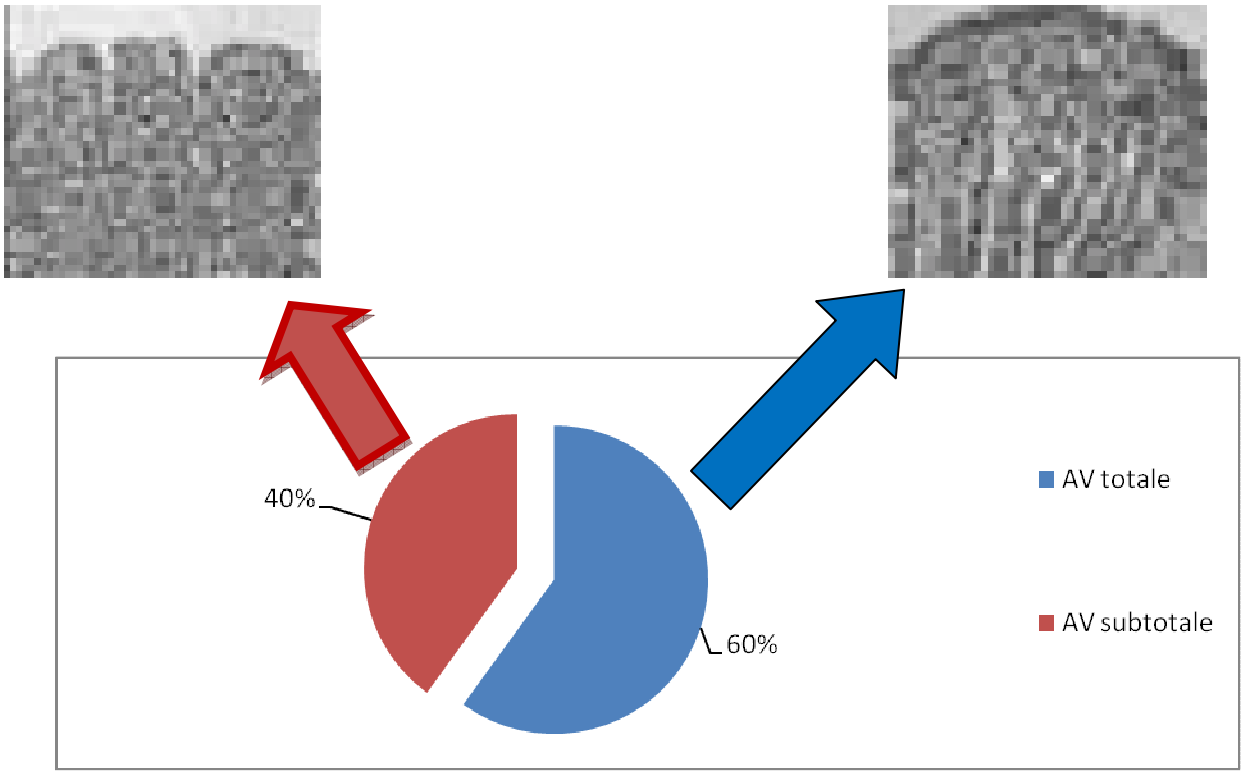

Fig. 4: Results of the anatomo-pathological study of duodenal biopsies

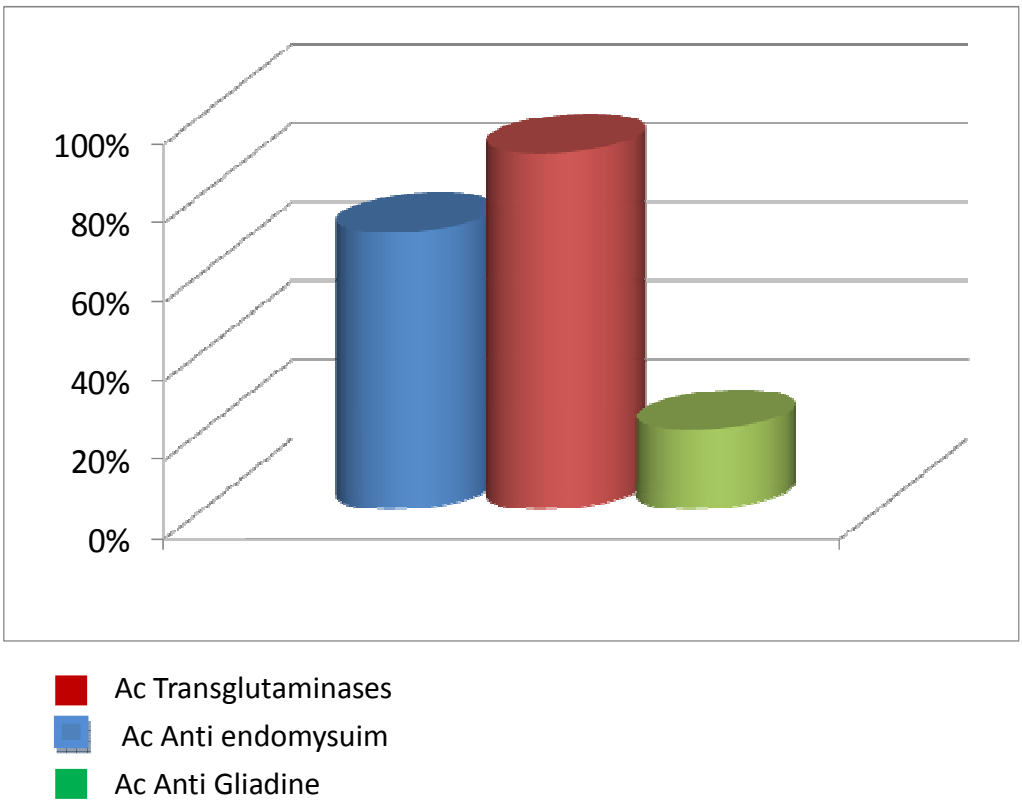

Table 1: Correlations: Serological profile / villous atrophy

	Atrophic villus Total n (%)	**Atrophie villositaire subtotal n (%)**	**P**
Positive serological markers	15 (100 %)	7 (70 %)	0.052

Table 2: Correlations: Endoscopic aspect / villous atrophy

	Atrophic villus Total n (%)	**Atrophie villositaire subtotal n (%)**	**P**
Endoscopic lesion	9 (60 %)	6 (60 %)	NS

- Some studies: Tab. 3, 4 and 5 / Fig. 6

Table 3: Correlation between the endoscopic aspect and the histology (*)

Fathallah	**Anomaly of the duodenal mucosa**	**Normal duodenal mucosa**	**p**
Presence of villous atrophy	67.5%	31.9 %	0.02

(*) Fathallah et al Gastroenterol Clin Biol, 2009, 33

Table 4: correlation between the serological profile and the histology (*)

Positive serology / degree of villous atrophy	**Total villous atrophy**	**Atrophies subcutaneous villositaire**	**Partial villous atrophy**	**p**
Study of Fathallah	89%	36%	17%	0.0001
Our series	100 %)	70%	-	0.052

(*) Fathallah et al Gastroenterol Clin Biol, 2009, 33

Table 5: Correlation between endoscopic and histological aspects

	Histology			
Magnification endoscopy	Normal	Partial villous atrophy	Severe villous atrophy	Total
Normal mucosa	4	0	0	4
Abnormal villi	2	5	1	8
Villi not present	0	1	3	4
Total	6	6	4	16

Indian Journal of Gastroenterology 2007, 26, 69

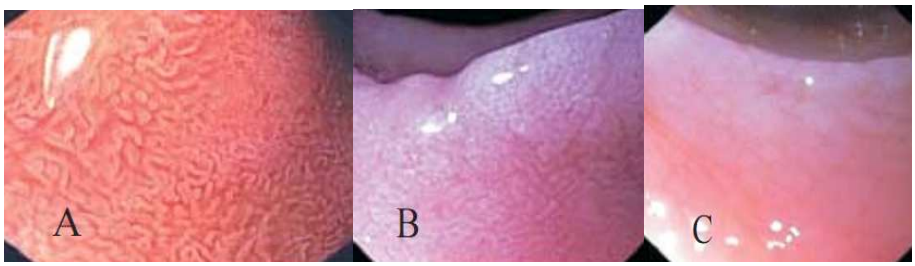

Fig. 6: Aspect of duodenal lesions at endoscopy

- A: Muqueuse normale
- B: AV partielle
- C: AV totale

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