

# Celiac Disease: Practical Knowledge of Young Doctors at Setif University Hospital, Algeria

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Received June 20, 2020; Revised July 22, 2020; Accepted August 02, 2020

**Abstract** The concept of celiac disease (CD) has greatly evolved during the last decades; ranging from the classical digestive form to the peculiar monosymptomatic and silent forms. Thus, in order to assess the knowledge of interns and residents in pediatrics about CD, a local survey was conducted through a 14-item questionnaire. This work provided a local glimpse of young doctors' awareness about CD. The level of knowledge was globally correct, but vigorous efforts are needed; notably regarding the use of celiac serology and the introduction of the gluten-free diet.

**Keywords:** celiac disease, physicians, knowledge

**Cite This Article:** Hakim Rahmoune, Mounira Amrane, and Nada Boutrid, "Celiac Disease: Practical Knowledge of Young Doctors at Setif University Hospital, Algeria." *International Journal of Celiac Disease*, vol. 8, no. 3 (2020): 104-106. doi: 10.12691/ijcd-8-3-6.

doctors (interns and residents) in a North-African Hospital (Setif University Hospital, Algeria).

## 1. Introduction

Celiac disease (CD) occurs in about 1% of people worldwide and diagnosis rates are constantly increasing the last decades due to the global rise in auto-immune diseases incidence and to an enhanced awareness among general population and healthcare providers [1,2].

Most data about CD is emerging from Europe, North and South America, Australia, South-West Asia, and North Africa; while the knowledge and awareness of CD in large parts of the remaining world areas is definitively poor [2,3].

Historically, the increasing trends of CD incidence and prevalence in Europe (especially in Scandinavian countries) preceded a similar trend in the USA: availability of highly specific serology as well as massive screenings contributed to increase awareness about CD among healthcare professionals and patients families. Subsequently, higher incidence and prevalence of CD were reported, particularly in Europe [4,5,6].

However, a Californian survey completed in 2005 through questionnaires sent to primary care physicians highlighted the lack of doctors awareness of potential adult CD onset, associated disorders, and use of serology [7].

All these factors, among many others, contribute to the underdiagnosis of CD, especially its atypical forms (silent/oligo-symptomatic forms) [1,4,5,6,7].

We conducted a monocentric survey to explore the current practical knowledge about CD among junior

## 2. Material and Method

In order to assess the knowledge of residents and interns in pediatrics about CD, a survey was launched through a printed 14-items questionnaire (Figure 1).

Participants were enrolled among junior doctors (interns and residents) in the pediatric department of the Setif University Hospital, Algeria.

The study was conducted from August 1st to October 31st, 2017.

Doctors knowledge was classified as:

1. **Weak** if < 5/14 answers were correct.
2. **Average** if 5 to 10/14 answers were correct.
3. **Good/Excellent** if > 10/14 answers were correct.

## 3. Results

Ninety doctors (72 interns and 18 residents) fully answered the questions of the survey.

Results (Figure 2) are summarized as:

1. **Weak knowledge** = 8.88%, all of them being interns (11.11% among the interns subgroup)
2. **Average knowledge** = 58.88% (59.72% of the interns; 55.56% of the residents).
3. **Good/ Excellent knowledge** = 32.22% (29.16 % of the interns and 44.44% of the residents).

**Université Ferhat Abbas Sétif -1- / CHU de Sétif**  
**Service De Pédiatrie Pr . Bioud**  
**Mémoire d'internat : Maladie cœliaque**

**Groupe : 06** **Encadré Par Dr.Rahmoune.**

**Enquête Destinée aux médecins en pédiatrie**

Interne  résident

**1- La maladie cœliaque est une :**  
 A - Maladie inflammatoire chronique de l'intestin.  
 B - Maladie systémique dysimmunitaire  
 C - Allergie au gluten.

**2 - La physiopathologie de la maladie cœliaque fait appel aux :**  
 A - Facteurs génétiques.  
 B - Facteurs environnementaux.  
 C - Facteurs auto-immunes.

**3- La génétique est un élément nécessaire à l'apparition de la maladie cœliaque :**  
 - Oui  - Non

**4- La confirmation du diagnostic clinique de la maladie cœliaque est :**  
 A - sérologique.  
 B - histologique.  
 C - sérologique et histologique à la fois .

**5- Est-il possible de retenir le diagnostic de la maladie cœliaque sans preuve histologique ?**  
 - Oui  - Non

**6- En vue d'une preuve histologique ; la biopsie intestinale est effectuée au**  
**Niveau : -duodéno- jéjunum**  
 -iléon  
 -colon

**7- L'atrophie villositaire est une lésion spécifique à la maladie cœliaque ?**  
 - Oui  - Non

**8- L'infiltrat lymphocytaire intra épithéliale renforce la valeur prédictive positive de la maladie cœliaque ?**  
 - Oui  - Non

**9- Existe-t-il une corrélation entre l'étendue des lésions anatomiques intestinales et l'expression clinique digestive de la maladie ?**  
 - Oui  - Non

**10- La maladie cœliaque asymptomatique correspond à :**  
 A - Clinique (-), Histologie (+), Sérologie (-).  
 B - Clinique (-), Histologie (-), Sérologie (+).  
 C - Clinique (-), Histologie (-), Sérologie (-).  
 D - Clinique (-), Histologie (+), Sérologie (+).

**11- Une maladie cœliaque non diagnostiquée à l'enfance peut-elle se révéler à l'âge adulte ?**  
 - Oui  - Non

**12- Est-il possible de débiter le régime sans gluten strict sans preuve histologique ?**  
 - Oui  - Non

**13- Le régime sans gluten strict peut-il être arrêté après restitution des lésions histologiques ?**  
 - Oui  - Non

**14- Le régime sans gluten strict peut-il être allégé à l'âge adulte ?**  
 - Oui  - Non

Figure 1. The Pediatric Survey Questionnaire about CD Knowledge (In French)

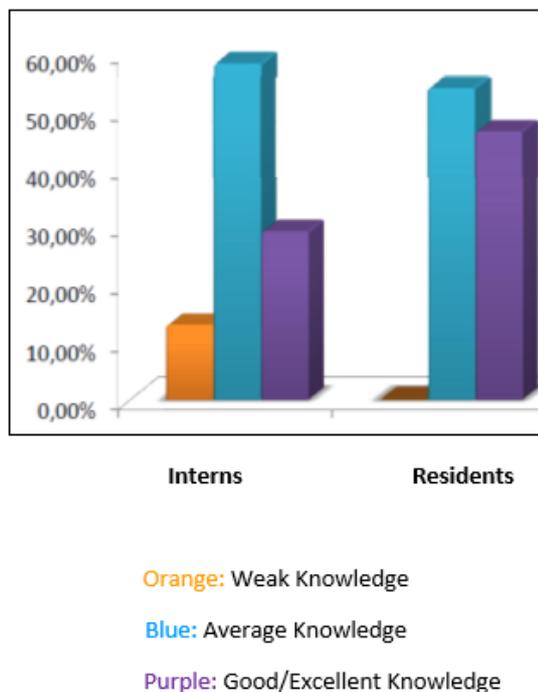


Figure 2. Junior Doctors Knowledge about CD

## 4. Discussion

According to our exhaustive bibliographic search, this is the first ever-reported survey to assess knowledge about CD in young doctors in North-Africa.

Globally, more than 90% of responders are considered as having good/average level of knowledge about CD (pathophysiology, diagnosis and management of CD). Weak knowledge was restricted to interns, probably due to the lack of routine practice.

The major pitfalls noted were regarding the use of serology and the introduction of the gluten-free diet (more than 30% of false answers among both interns and residents)

The local CD guidelines [8] and international recommendations (notably from the European Society for Paediatric Gastroenterology Hepatology and Nutrition, ESPGHAN) [9,10] are regularly taught during the long medical curriculum of doctors in Algeria.

The gap revealed by this monocentric survey is probably due to the evolving concepts of CD and to the biological and clinical chameleon pictures of CD. More attention and efforts are needed, mainly through continuous medical education.

## 5. Conclusion

Our survey provided a local glimpse of young doctors' concept and knowledge of celiac disease.

Vigorous work must be run to refine the knowledge of doctors, in particular with regard to the use of celiac serology and the introduction of the gluten-free diet.

## Acknowledgements

The authors are supported by the Directorate General for Scientific Research and Technological Development (DGRSDT), MESRS, Algeria.

The sponsor had no involvement in the collection, analysis and interpretation of data; in the writing of the manuscript; and in the decision to submit the manuscript.

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