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Correlation between Cut-off Level of Tissue Transglutaminase Antibody and Marsh Classification

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In a brief report on "Correlation Between Cut-off Level of Tissue Transglutaminase Antibody and Marsh Classification" published in October 2016, the role of IgA-anti-tTG has been briefly explained but certain discrepancies have been noticed.

1. As per the literature of the kit (Euro immune, Germany) used for anti-tTG estimation, the units have been mentioned as RU/mL. But in the text, the authors have used units as IU/mL or IL/mL. What is the conversion factor used to convert RU/mL into these units, since the authors have suggested a cut off value, exact units must have been clearly mentioned.

Answer:

I am glad that the article has interested you and I appreciate your kind and helpful comments. I am going to answer to your comments point by point.

The kit (Euro immune, Germany) was used for tTG antibody estimation in our study. Units have been RU/mL but in paper print of laboratory report had been written IU/ml by mistake.

Units are usually referred to as reference units (RU). When the reference material has been tested successfully in international, multi-center, collaborative studies it will be designated a WHO international standard, the units will then be International units (IU).

There is no need for conversion factor.

2. The authors have studied the correlation between cut off level of tissue transglutaminase antibody and Marsh classification but the correlation coefficient (r-value) has not been given.

Answer:

In page 321 of the article has been written "We also found that there was a linear correlation between Marsh I to III and tTG level by Spearman correlation ($r = 0.58$ $P = 0.04$)."

3. In the study, it has been mentioned that 100% of the patients with anti-tTG > 200% IL/mL had Marsh III, but according to box plot, patients in Marsh II have shown same median tTG levels.

Answer:

In table 1 on page 321we mentioned about : anti-tTG > 200 RU/ml can be seen in Marsh ≥ II and has 100% specificity but sensitivity for Marsh III was 73% compared with 68% for Marsh ≥ II.

In page 320 has been written "Increase in fold rise up to 10 times of normal

limit of anti-tTG has 100% specificity for mucosal atrophy" which is by definition Marsh ≥ II (table 1).

In discussion has been written "tTG ≥ 200 RU/ml was 100% specific for Marsh III. It is better to change it to "tTG ≥ 200 RU/ml was 100% specific for Marsh ≥ II or mucosal atrophy".

In our believe , degree of reported mucosal change in biopsy can be lower than what it really is because of patchy changes in celiac disease. When serology is highly positive and more than 200 RU/ml. we can be sure of definite diagnosis of celiac disease and by positive clinical history, with specificity of 100% probably we do not need endoscopy and pathology for diagnosis. We can use anti tTG titer for suspicious case with reported low grade of mucosal changes also .

4. The clinical picture of the patients in different stages of Marsh classification should have been provided so as to know how these cases differ in their presentation.

Answer:

In page 320 has been written "we could not identify any correlation between the anti-tTG titer and clinical manifestations."

There was no significant difference between presentation and Marsh classification too. But our study was not about the correlation between clinical findings and Marsh.

CONFLICT OF INTEREST

The authors declare no conflict of interest related to this work.

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