LATE ONSET OF A RARE AUTOIMMUNE ASSOCIATION – COELIAC DISEASE AND HASHIMOTO’S THYROIDITIS – HORMONAL AND METABOLIC IMPLICATIONS

CASE REPORT

Mirela Puiu1, Adina Manolachi1, Ioana Vasiliu1, Jeanna Iordache1, Ioana Boadescu2, Radu Popa2, Elena Gologan2, Carmen Vulpoi2

1 – Department of Endocrinology, 2 – Department of Vascular Surgery. 3 – Department of Gastroenterology
University of Medicine and Pharmacy “Grigore T. Popa” – Iasi, Romania

Introduction

● Thyroid diseases in patients with celiac disease
  in patients with CD, increased prevalence of:
  - Autoimmune thyroiditis:
    - thyroid peroxidase antibodies in CD:
      - 29.7%, 14 out of 47 patients
    - had mild hypothyroidism, 3 – subclinical hypothyroidism
    - healthy controls - 9.6%
  - Thyroid dysfunction:
    - thyroiditis occurred in 5.0%
    - spontaneous hypothyroidism in 5.8% of the celiac patients

● Marsh criteria

- stage 0: normal mucosa
- stage 1: increased number of intra-epithelial lymphocytes > 20/100 enterocytes
- stage 2: proliferation of the thyroids of Lieberkühn
- stage 3: partial or complete villous atrophy
- stage 4: hypoplasia of the small bowel architecture

● Laboratory findings and evolution:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Normal values</th>
<th>May 2013</th>
<th>September 2013</th>
<th>March 2014</th>
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</thead>
<tbody>
<tr>
<td>TSH</td>
<td>0.4-4.0 µU/ml</td>
<td>27</td>
<td>0.4</td>
<td>6.41</td>
<td>10.3</td>
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<tr>
<td>FT4</td>
<td>0.89-1.76 ng/dl</td>
<td>0.65</td>
<td>1.16</td>
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<td>1.10</td>
</tr>
<tr>
<td>ATPO</td>
<td>&lt;100 IU/l</td>
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<td>Alg</td>
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<td>Protein total</td>
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<td>Ca total</td>
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<td>1.60-2.60 mg/dl</td>
<td>1.3</td>
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● Vascular surgery examination
  - profound thrombosis
  - treatment with acenocumarol
  - INR: 1.37 < 7.32 – reducing dose at 1 mg → 14 (N,0.8,1.25)
  \( \frac{14}{N,0.8,1.25} \)
  Heparin pump – normalization of INR
  Clopidogrelum, well tolerated

● Treatment
  - Gluten-free diet
  - L-thyroxine 50 µg/d, now 100 µg/d
  - Vitamin D 1000 U/d
  - Mg, Ca
  - Iron
  - Bisphosphonates

Case Report

● Patient
  - female patient
  - 65 years old
  - was sent to Endocrinology Department for hypothyroidism
  - associated severe discholostroemia

● Medical history:
  - Coronary bypass [with no anticoagulant treatment];
  - Hypertension;
  - Dyslipidemia;

● Symptoms
  - Diarrheic episodes
  - Dec 2012 – transitory
  - Jan 2013 – persistent
  - Weight loss
  - Asthenia

● Clinical examination
  - BMI = 17.5 kg/m²
  - Inferior limb edema
  - More important on the right side

● Investigations
  - Colonoscopy – negative;
  - Endoscopy revealed gastritis;
  - Gastric biopsy – diagnosed chronic antral gastritis;
  - Abdominal CT – normal;

● Other data
  - Markers for digestive neoplasia and NET – negative
  - Negative coproculture
  - Patient refused intestinal biopsy

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● Discussion

- Patients with both autoimmune diseases – older than those with celiac disease only
- Older age at diagnosis of celiac disease indirectly reflects the duration of gluten exposure
- Prolonged duration of gluten exposure in unrecognized patients with celiac disease might predispose to other autoimmune diseases
- Both diseases can present with non-specific symptoms (lethargy, bowel disturbance, anaemia)
- Pitfalls in the serological screening
  - Real frequency may be higher
- May the GFD diet be a method of lowering thyroid antibodies?

Conclusions

- Undiagnosed CD associated with TAI may determine severe metabolic disturbances, due to the vicious circle of malabsorption. Low T4 absorption impose attentive substitution dosage.
- Most of guides do not recommend systematic search of CD in TAI however, since, as in our patient, CD may be paucysymptomatic and/or with late manifestation, we believe that it may be useful to search it, if not in all AIT patients at least in those with metabolic disturbances

References: