PREVALENCE AND PREDICTION OF GASTRIC MUCOSAL ABNORMALITIES IN A PROSPECTIVE SERIES OF 50 PATIENTS WITH GRAVES-BASEDOW DISEASE

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**Background**: Although the association of thyroid and gastric auto-antibodies was initially described in Hashimoto thyroiditis, the prevalence of parietal cell antibodies (PCA) and mucosal gastric abnormalities in Graves Basedow disease have not been fully elucidated.

**Objective**: The first end point is to detect the prevalence of gastric mucosal abnormalities in a prospective series of Graves-Basedow (GB) patients. The second end point is to characterize significant predictors (clinical and biochemical) of gastric mucosal abnormalities in these patients.

**Methods**: We enrolled 50 consecutive patients with GB disease from 2009 to 2010. They were screened for thyroid parameters, pernicious anemia, iron parameters and gastric autoimmunity. Symptomatic patients (pyrosis) and/or asymptomatic patients with parietal cell autoantibodies (PCA), intrinsic factor antibodies (IFA) and/or hypergastrinemia were invited to have a gastric endoscopy. Serial biopsies were performed for histology and immunohistochemical studies.

**Results**: There were 80% (40/50) women and 20% (10/50) men in the series. Mean age at diagnosis was 42±12 years. Mean TSH was 2,44 ±7,2mU/ml. Mean anti TSH receptor antibodies were 32,3±78 %, anti peroxydase antibodies: 179±186 mUI/ml and antithyroglobulin antibodies : 331±543 ng/ml. Signs of ophtalmopathy were present in 32% (16/50) of patients. Hematological parameters showed a mean hemoglobin of 13,6±1,2 gr/dl, MCV was 86,2±9,2 fl, iron and ferritin were respectively 22,6±18 µg/l (n= 32) and 101±114 pg/ml (n= 42). B12 vitamin was <200 pg/ml in three patients. Mean gastrine was 68±86 pg/ml and hypergastrinemia (>120pg/ml) was detected in 8,3% (3/36) of patients. Gastric autoimmunity was present in 16% (8/50) of patients (PCA positivity: 5 patients with PCA+ and 3 patients with IFA+). Gastroscopy was performed in 26% of patients (13/50). Mucosal abnormalities were present in 92% (12/13) of patients. Biopsies confirmed antritis in 7 (53%), oesophagitis in 5(38%), funditis in 3 (23%), gastric atrophy in 2 (15%) , metaplasia in 1 (7%) and *helicobacter pylori* infection in 2 (15%). A total of 22 patients received propylthyouracil, 12 patients had radioiodine, 10 patients had PTU+radioiodine, and 6 patients underwent total thyroidectomy. In univariate analysis, none of the different clinical and biological parameters were significant predictors of gastric abnormalities.

**Conclusions:** *H. pylori* mimicks gastric autoimmunity but this can be reversible after eradication. The high prevalence of autoimmune gastritis and gastric mucosal abnormalities in this series provide a strong rationale for an early serologic screening and gastroscopic diagnosis in patients with Graves disease.