

Gender related differences in patients with type 2 diabetes with or without autoantibodies to glutamic acid decarboxilase (GAD)

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We studied 501 consecutive patients with type 2 diabetes (T2DM), 261 males and 240 females, of whom 62 resulted GAD antibody positive. We evaluated in these patients the prevalence of the metabolic syndrome (MS) according to the NCEP ATP III criteria. 80% of GAD negative and 30% of GAD positive females met MS criteria ($p < 0.001$), compared to 53,9% vs 45,4% of GAD negative and positive males, respectively ($p = \text{NS}$). Family history for diabetes was more common in GAD negative female (65%) than GAD negative male patients (45,6%). There was no gender difference in relation to insulin treatment. GAD negative female patients received significantly more hypotensive drugs and statin (52,8% and 50,4%) than either GAD negative male (30,9% and 33,3%) ($p < 0.001$) or GAD positive patients irrespective of gender (20% and 15%). Female patients received more oral hypoglycaemic drugs than males, irrespective of GAD status (78% vs 53%) ($p < 0.03$). Anthropometrical features and laboratory tests were similar in GAD positive patients; significant differences in the GAD negative group were observed when comparing females vs. males for: age $50,8 \pm 10,6$ yrs vs. $48,6 \pm 11,3$ yrs ($p < 0,03$); blood pressure $141,2 \pm 18$ vs. $136,1 \pm 16,3$ mmHg ($p < 0,01$); body mass index $33,1 \pm 7,4$ vs $30,0 \pm 6,0$ kg/sqm ($p < 0,001$). Conclusion: important differences exist in patients with T2DM with or without GAD autoantibodies. Antibody positive patients do not differ in gender for clinical and biochemical features whereas GAD negative patients have high prevalence of MS especially in the females group.