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Level of physical activity in patients with newly diagnosed type 2 diabetes mellitus compared to controls

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Background & Aim: Assess the level of physical activity of patients with newly diagnosed type 2 diabetes mellitus (DM2). Compare the sample of patients with newly diagnosed DM2 with controls without DM2 according to the level of physical and sedentary activity.

Method: Cross-sectional descriptive study. Three urban primary care centers. Patients with newly diagnosed type 2 diabetes between 30 and 74 years, in which the level of physical activity was assessed by the International Physical Activity Questionnaire (IPAQ), short version self-administered, matched by age, gender, previous medical treatment (yes/no) for hypertension and/or dyslipidemia and current smoking (yes/no). The energy consumption index (METs/minutes/week: MMW) was calculated by IPAQ to classify the subjects into three levels of physical activity (low/moderate/vigorous). The level of physical inactivity was calculated using the rate of inactivity hours/day (h/d).

Results: 186 subjects (94 DM2 and 92 controls). A lower rate of energy consumption was observed in the DM2 group than the control group (2284 MMW \pm 2780 MMW vs 2869 MMW \pm 2692 MMW; $p=0,03$). The level of physical activity classified according three qualitative categories showed no statistically significant differences between the two groups (low activity 25.5% in the DM2 group vs 20.7% in the control group, moderate activity 54.3% vs 53.3% and vigorous 20.2% vs 26.1%). The calculation of the degree of physical inactivity did not show statistically significant differences between the two groups (6,59 h/d \pm 3,36 h/d vs 6,04 h/d \pm 3,07 h/d).

Conclusions: In our study the majority of patients with newly diagnosed type 2 diabetes presented a moderate level of physical activity, higher than in other previously published studies. There were no differences between groups in the level of activity calculated by qualitative IPAQ. However there were differences in terms of energy consumption index calculated by MMW. We consider that IPAQ would discriminate levels of physical activity better with values of METS/minutes/week less extensive than those currently used.

Keywords: (MeSH): International Physical Activity Questionnaire (IPAQ), type 2 diabetes mellitus, physical activity.