only four persons (3.3%) fulfilled all five criteria.

Table 3 shows the incidence of MS and its components among participants who did not have them at baseline, as well as the resolution of MS and its components among those who had them at baseline. In particular, among participants who did not have MS at baseline (44 persons [36%]), a total of 14 individuals (31.8%) developed the syndrome at the end of the intervention period one year later, and among participants who had MS at baseline (78 persons [63%]) it was resolved in 24 individuals (31%) one year later. Eighty-four participants (68%) remained in the same status at the end of the intervention. When the 78 persons who had MS at baseline were analyzed separately, improvement in MS status after one year was significantly associated with male gender (r=0.24, p=0.037), having a lower dietary score at baseline (r=-0.25, p=0.028), improvement of the dietary score after one year (r=0.24, p=0.033), having a higher baseline HDL-C level (r=0.23, p=0.040), a lower baseline triglyceride level (r = -0.23, p = 0.048), a lower FINDRISC score (r=-0.30, p=0.007) and having a lower number of MS components at baseline (r=-0.32, p=0.004).

In a multiple logistic regression model with backward selection of variables, including the variables that showed significant correlations in the univariate analyses, younger age (β=-0.16, p=0.009), male gender (β=4.44, p=0.004), improvement of the dietary score after one year (β=3.34, p= 0.022), a lower FINDRISC score (β = -0.67, p = 0.033), a lower triglyceride level (β =-10.12, p =0.010) and a higher HDL-C level (β=0.32, p=0.003) were significantly and independently associated with improvement in MS status.

DISCUSSION

The data in the present study show that the prevalence of MS in middle-aged persons at high risk for the development of T2D is quite high (63.4±48.4%) and that a one-year, non-intensive lifestyle intervention program is able to decrease it significantly, possibly conferring multiple benefits regarding CVD risk. These data confirm the findings of the U.S. Diabetes Prevention Program which was performed in a much larger and more ethnically diverse population of individuals with IFG/IGT13 where, apart from diabetes prevention, the additional possibility of cardiovascular prevention was also entertained through decrease of MS prevalence with lifestyle intervention after three years of follow-up. The prevalence of MS in the DPP population was nearly the same as in the present study (69%, when an FPG cut-off >100 mg/dl [5.6 mmol/L] was used) and, similar to our findings, it was not different among age groups studied. On the contrary, in the general population the prevalence increases with age (from 12% for individuals in their thirties, up to around 42% at age >70 years).10 This can be explained by the fact that our population, as expected, had a higher cardiovascular and diabetes risk, since the participants were specifically selected (by the FINDRISC questionnaire) to be at increased risk for T2D.

Of particular note is the distribution of components of the syndrome: increased waist circumference (82%), high BP (76%) and high FPG (67%) were the most prevalent components (Table 2). In the DPP data set, WC was also the most prevalent component (78%), but low HDL-C (57%) and high triglyceride levels (46%) were the next more frequent ones. A difference in the definition of FPG (>110 mg/dl [6.1 mmol/L] and ethnic variability in the DPP study) and