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ABSTRACT

Background. Early carbohydrate metabolism disorders (ECMDs) and diabetes mellitus (DM) are frequently associated with endogenous hypercortisolism (EG). The prevalence of secondary (sDM) in these cases are poorly investigated.

Aim. We aimed to assess the prevalence of ECMD and DM in patients with EG (pituitary-dependent Cushing (CD) and adrenal-dependent Cushing (AC) and ACTH-ectopic syndrome (ACTHs) depending on gender and age.

Patients and methods. 42 patients with hypercortisolism (CD -32 patients, AC-7 patients, ACTHs-3 patients), (5 men, 37 women; 42.0 [33.7-49.2] yrs, estimated duration of EG - 36.0 [24-70] month) were examined. OGTT was done in those not yet diagnosed with DM to reveal asymptomatic DM or early carbohydrate metabolism disturbances (ECMDs). Comparisons were made between patients with hypercortisolism and participants from the general adult population (GP) (n=838) and an adult population with multiple type 2 diabetes risk factors (HR group) (n=604), matched for age and BMI.

Results. DM was diagnosed in 26 patients with EG (62%) and in 75 (8.9%) of the general population (P<0.001). The prevalence of ECMDs was similar in patients with hypercortisolism (17%) and in the GP (15.2%) and in the HR group (23.7%); only 21 % of patients with EG were normoglycaemic. The prevalence of newly diagnosed DM was more than 2 times higher in patients with EG compared with the HR group (38.1% and 16.1% accordingly, p<0.05).

The prevalence of DM in women from EG group was 1.5 times higher than in men (64.8% and 40% respectively, p<0,05), apart from that newly diagnosed DM in women was 2 times higher than in men (40% and 20% accordingly, p<0,05). The prevalence of DM increased with age (from 31 % (in those younger than 45 yrs) to 88 % (elder than 55 yrs), (p<0,05).

Conclusion. In patients with hypercortisolism, the prevalence of DM and ECMDs considerably exceeds that of the general population and of a high-risk group

AIM

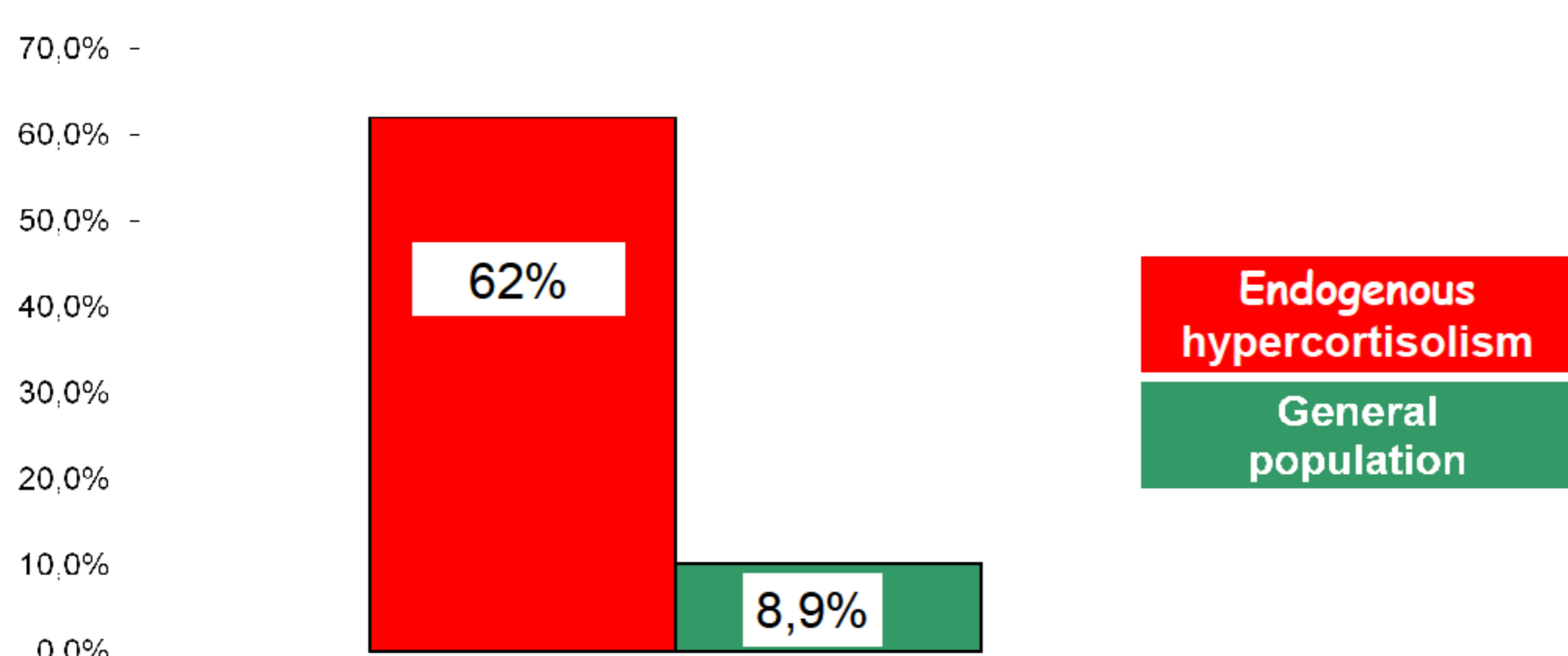
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PATIENTS AND METHODS

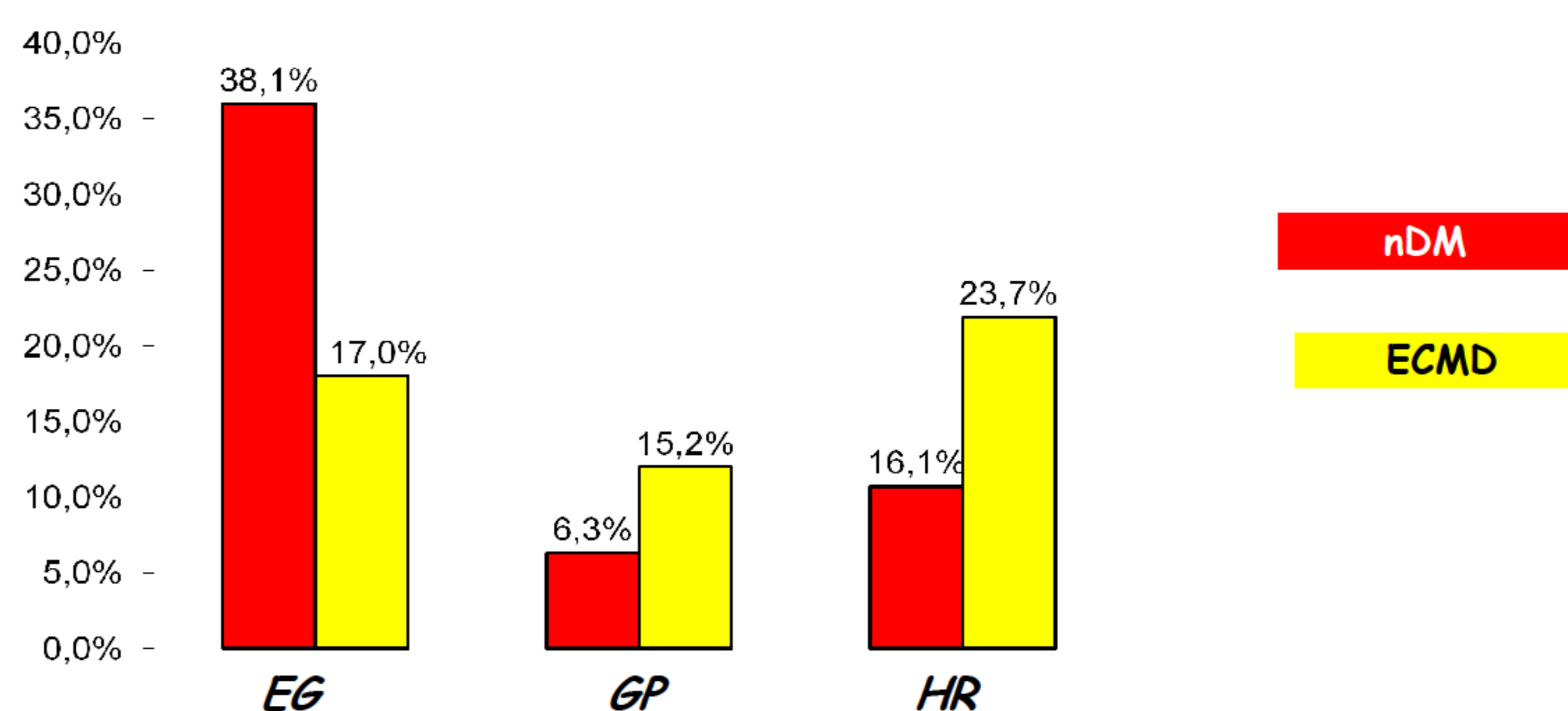
42 patients with hypercortisolism (CD -32 patients, AC-7 patients, ACTHs-3 patients), (5 men, 37 women; 42.0 [33.7-49.2] yrs, estimated duration of EG - 36.0 [24-70] month) were observed. OGTT was done in those not yet diagnosed with DM to reveal asymptomatic DM or early carbohydrate metabolism disturbances (ECMDs). Comparisons were made between patients with hypercortisolism and participants from the general adult population (GP) (n=838) and an adult population with multiple type 2 diabetes risk factors (HR group) (n=604), matched for age and BMI.

RESULTES

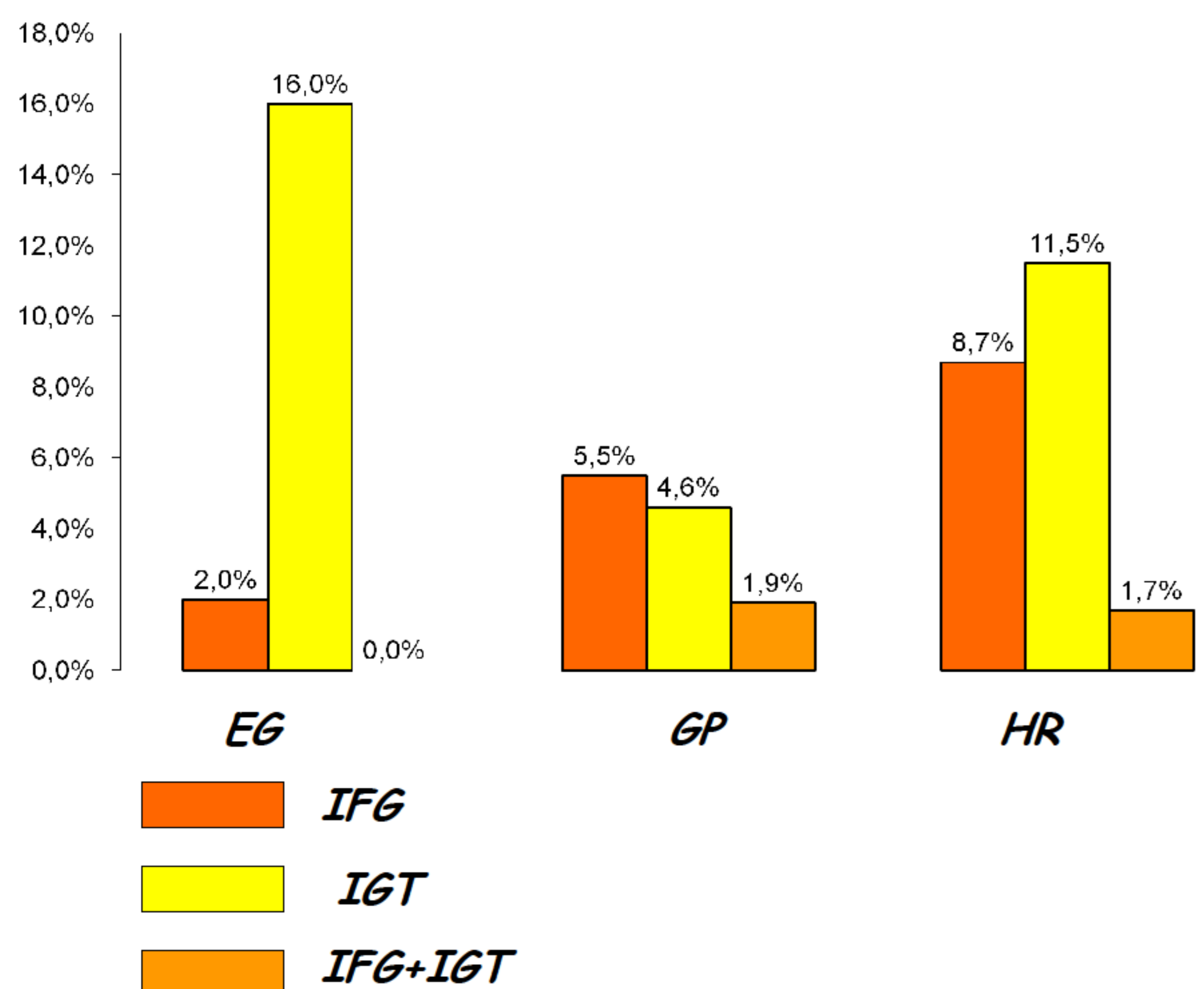
Figure 1. The prevalence of DM in patients with EG of Moscow Region and in the general adult population of Moscow Region.



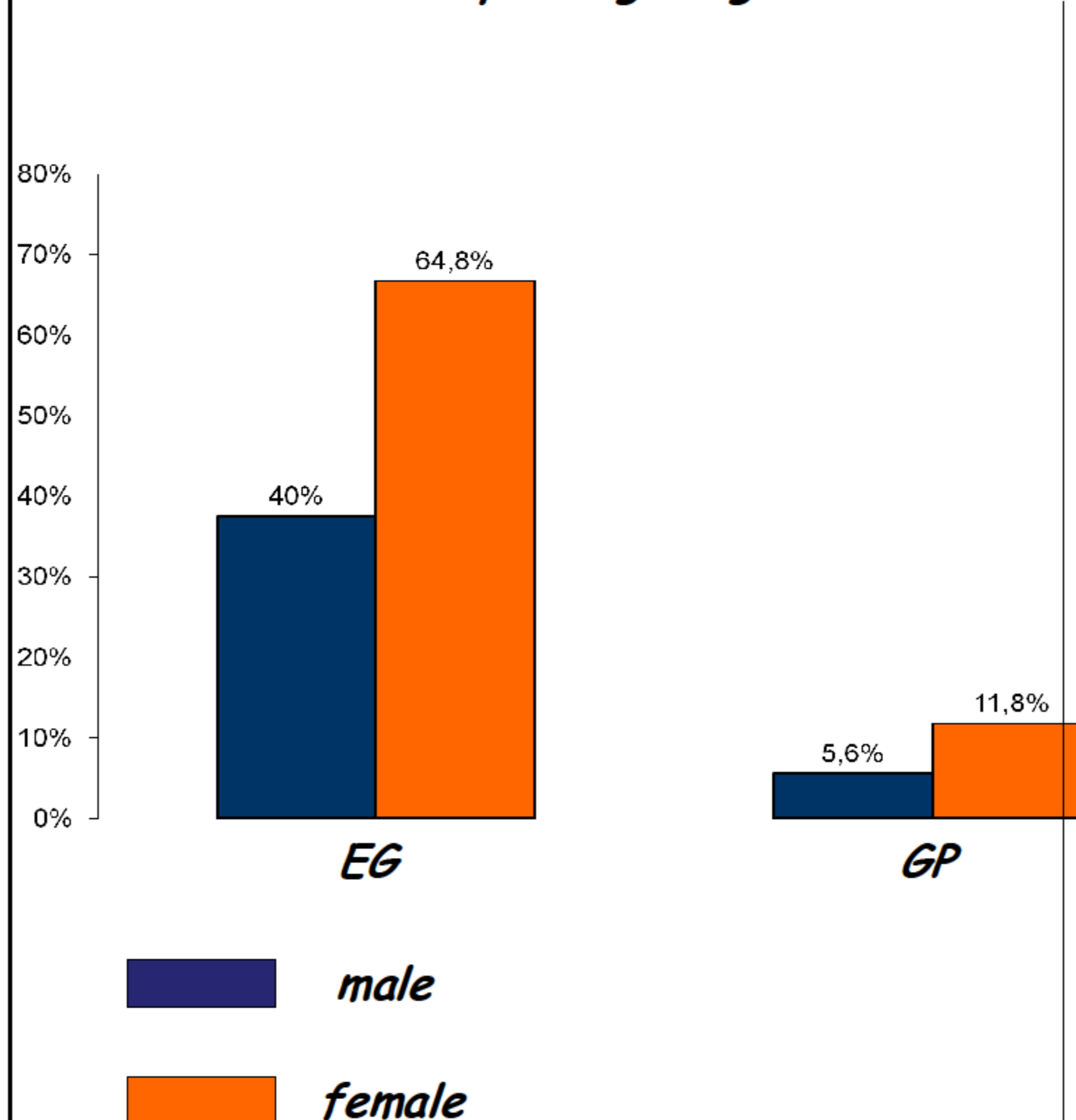
The prevalence of newly diagnosed DM (nDM) and ECMD in patients with EG of Moscow Region, in the general adult population (GP) and an adult population with multiple type 2 diabetes risk factors (HR group)



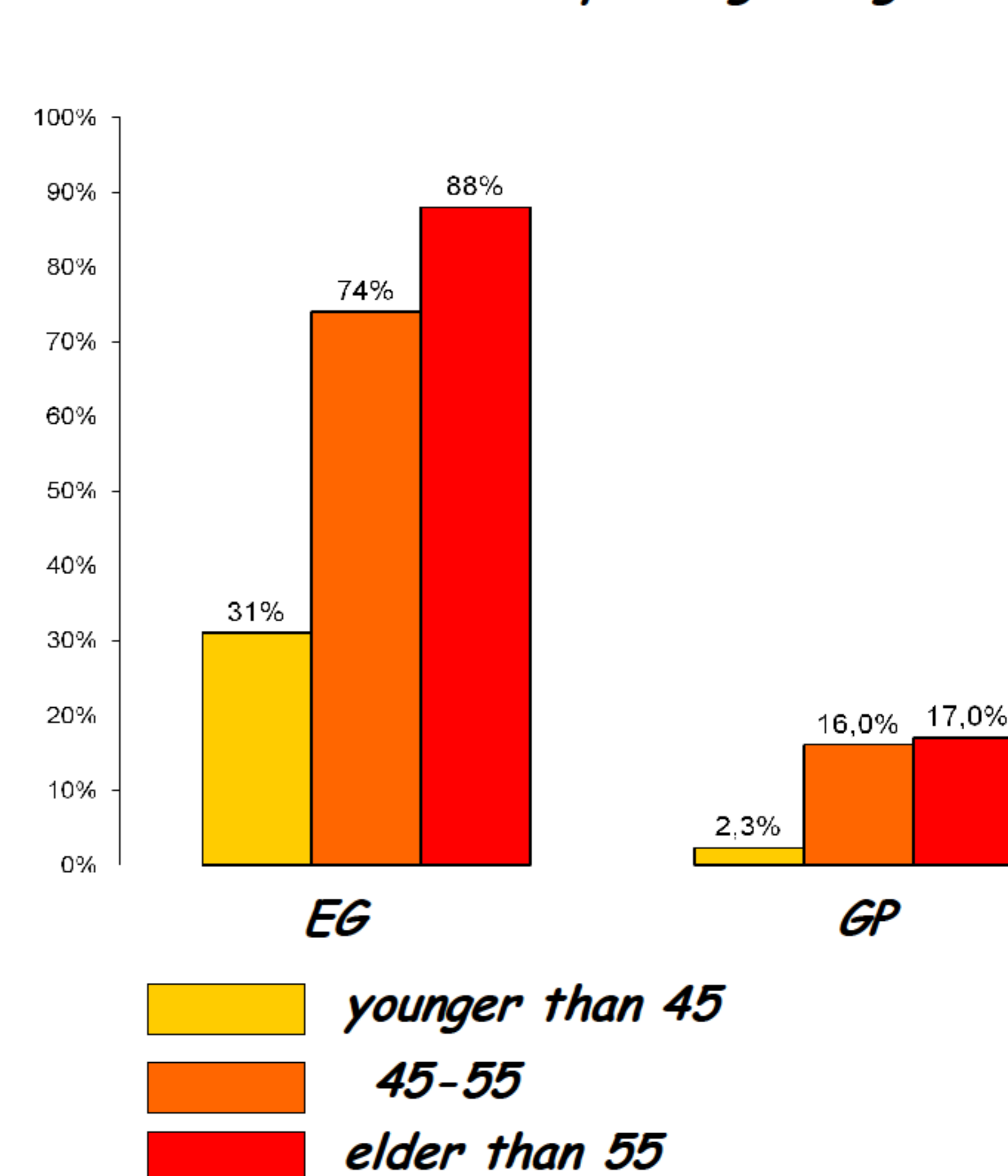
The prevalence of early carbohydrate metabolism disturbances (impaired fasting glycemia (IFG), impaired glucose tolerance (IGT) and their combination (IFG+IGT) of in the GP and HR group



The prevalence of DM in patients with EG and in the GP depending on gender.



The prevalence of DM in patients with EG and in the GP depending on age.



CONCLUSION

In patients with hypercortisolism, the prevalence of DM and ECMDs considerably exceeds that of the general population and of a high-risk group,

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Diabetes (to include epidemiology, pathophysiology)
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Poster presented at:



Poster SessionOnline.com