

PHARMACOTHERAPY IN PATIENTS AFTER ACUTE MYOCARDIAL INFARCTION BASE FOR AN EFFECTIVE SECONDARY PREVENTION

DATA FROM A PILOT REGISTRY IN THE CZECH REPUBLIC



Hana Grünfeldova - Centre of Biomedical Informatics, Municipal Hospital, Caslav, Czech Republic
Marie Tomeckova - Centre of Biomedical Informatics, Institute of Computer Science, AS, Prague 8, Czech Republic
Zdenek Monhart - Dept. of Internal Medicine, Hospital Znojmo, Czech Republic
Vaclav Faltus - Centre of Biomedical Informatics, Institute of Computer Science, AS, Prague 8, Czech Republic
Jan Peleska - Centre of Biomedical Informatics, Institute of Computer Science, AS, Prague 8, Czech Republic
Dana Rysava - Dept. of Internal Medicine, Hospital Kutna Hora

INTRODUCTION

The pharmacotherapy at the discharge from the hospital can be a marker of the beginning of the secondary prevention.

The follow up pilot registry (since 2003) of Acute Myocardial Infarctions (AMI) enables to obtain data about the disease frequency, therapy strategies and their results; to check the compliance with medical guidelines in a current practice and, to compare quality of care in individual regions. In contrast to the cross-sectional CZECH registry of ACS, this pilot registry shows a gradual development in management of AMI.

OBSERVATION

The aim of the presentation is to compare the findings in the first (2003) and the fourth (2006) year of the registry. Data were collected in three small community hospitals of the Czech Republic (Caslav, Kutna Hora and Znojmo). The hospitals are without catheterization laboratories.

Both samples of patients with AMI are nearly equal (n = 564 in the year 2003 vs. n = 583 in the year 2006) with slightly less women in both years (46.8, vs. 42.9 % women). Women were significantly older than men (men - 67.62, vs. 67.61 years vs. women - 75.8, vs. 76.1 years, resp.) - see Table 1:

	2003	2006
Men	67.6 ± 12.4	67.6 ± 12.26
Women	75.8 ± 9.7	76.1 ± 9.83

Tabl.1: Mean age of the patients (in years ± standard deviation)

Risk factors of the patients were in both years equally present, only hypertension was significantly more frequent (74.2 vs. 80.4 % - p = 0.016) and smoking borderline lower (26.1 vs. 21.1 % - p = 0.061) in the year 2006 - see Table 2:

	2003	2006	p
Hypertension	74.2	80.4	0.016
Hyperlipoproteinemia	52.7	57.3	0.160
Smoking	26.1	21.1	0.061
Diabetes mellitus	46.1	44.2	0.610

Tabl.2: Risk factors - % of patients

Significant decrease of in-hospital mortality (15.2 % vs. 10.5 %, p = 0.020) was mainly due to the increase of PCI (63.0 % vs. 75.4 %, p = 0.014) - see Figure 1:

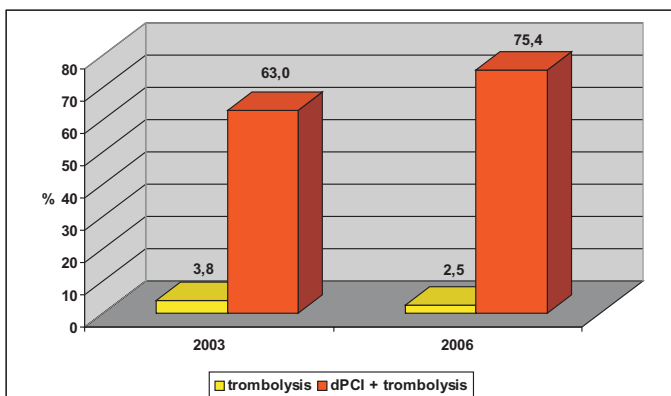


Fig.1: Reperfusion therapy

The frequency of recommended drugs started at discharge has substantially increased as shown in the Table 3 and Figure 2:

	2003	2006	p
Aspirin	64.0 %	86.3 %	< 0.0001
Clopidogrel	21.1 %	49.3 %	< 0.0001
Betablockers	53.5 %	87.2 %	< 0.0001
ACEI/ARB	48.8 %	75.4 %	< 0.0001
Statins	45.7 %	76.8 %	< 0.0001

Tabl.3: Therapy at discharge from the hospital

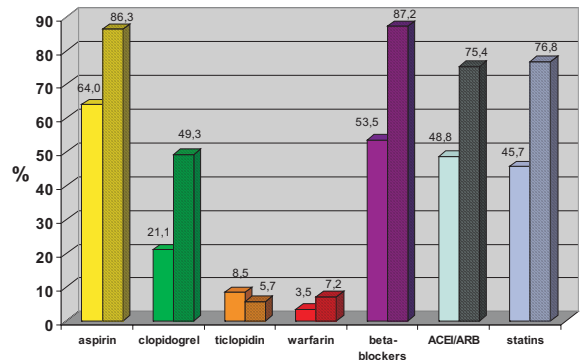


Fig.2: Therapy at discharge from the hospital

RESULTS AND SUMMARY

We compared two groups of patients with acute myocardial infarction hospitalized in tree community hospitals in the Czech Republic in the years 2003 and 2006:

- relative part of women in both groups was analogous (46.8 %, vs. 42.9 %, p = 0,5)
- mean age neither in men nor in women did not differ, in both groups, women were significantly older than men - p < 0.001
- common risk factors in both groups was hypertension, then hyperlipoproteinemia, diabetes mellitus and smoking. Significant difference was only in hypertension (74.2 % vs. 80.4 % - p = 0.016)
- mean duration of hospitalization slightly decreased to 9.5 days
- in-hospital mortality significantly decreased to 10.5 %, p = 0.020
- this decline was probably due to increase of reperfusion therapy mainly to a substantial increase of direct PCI in patients with STEMI - to 75.4 % (p = 0.014)
- in agreement with medical guidelines, the frequency of recommended drugs started at discharge has substantially increased

CONCLUSION

Results document both a quick development in the nationwide application of primary PCI strategy for STEMI with the consequent decrease of in-hospital mortality, and a substantial improvement in the start of secondary prevention of coronary heart disease.

Address for correspondence:

MUDr. Hana Grünfeldová
 Centrum biomedicínské informatiky, Městská nemocnice Čáslav,
 Jenikovská 348, 286 01 Čáslav

e-mail: grunfeldova@email.cz