Unutarbolnički i ishodi nakon jedne godine praćenja u bolesnika s akutnim infarktom miokarda bez elevacije ST-segmenta liječenih perkutanom koronarnom intervencijom unutar 24 sata, odgođenom perkutanom koronarnom intervencijom ili optimalnom medikamentnom terapijom: iskustva iz Hrvatskog ogranka registra ISACS-CT

The outcomes in patients with acute non-ST elevation myocardial infarction treated with percutaneous coronary intervention within 24h after onset, delayed percutaneous coronary intervention or optimal medical therapy at initial hospitalization and during one-year follow-up: the experience from the Croatian branch of the ISACS-CT Registry

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Uvod: Utjecaj koronarnih intervencija na kratkoročno i dugoročno preživljavanje bolesnika s akutnim infarktom miokarda bez elevacije ST-segmenta (NSTEMI) nije se pokazao jednoznačnim.[1] Cilj ovog rada je usporediti unutarbolničke te ishode nakon jedne godine u bolesnika sa NSTEMI i učinjenom perkutanom koronarnom intervencijom (PCI) u prvih 24 sata (PCI ≤ 24h), s PCI nakon (PCI > 24 h) te onih s optimalnom medikamentnom terapijom (OMT).

Metode: U razdoblju od siječnja 2012. do listopada 2017. u Hrvatski ogranak registra ISACS-CT (NCT01218776) uključeno je 1.898 bolesnika, od kojih je 36% imalo NSTEMI (n = 685), a njih je 675 bilo liječeno jednom od tri istraživane terapije. Jednogodišnje praćenje bilo je dostupno u 217 (32%) bolesnika.

Rezultati: 57% bolesnika sačinjava PCI ≤ 24 h skupinu (n = 386), 14% (n = 95), (PCI > 24 h), a 29% (n = 194) OMT skupinu. Bolesnici na OMT-u su bili značajno stariji, opterećeniji komorbiditetima, hospitalizirani dulje i s duljim odmakom od početka simptoma te s nižom vrijednosti ejekcijske frakcije (EF) pri otpustu (**tablica 1**). Unutarbolnički mortalitet nije se razlikovao u tri skupine (PCI ≤ 24 h; PCI > 24 h; OMT - 2,5%; 3,5%; 4,6%; p = 0,220). Bolesnici s PCI ≤ 24 h imali su najveću učestalost reintervencije primjenom PCI (PCI ≤ 24 h; PCI > 24 h; OMT: 15%; 3%; 0%; p = 0,008). Nije bilo značajne razlike u ostalim značajnim kardiovaskularnim događajima - hospitalizacije zbog akutnog infarkta miokarda s elevacijom ST-segmenta (p = 0,998), ponovnog NSTEMI-ja (p = 0,728), aortokoronarnog premoštenja (p = 0,094), srčanog zatajivanja (p = 0,554) niti moždanog udara (p = 0,309). U bolesnika s dostupnim jednogodišnjim

Background and aim: Previous studies found conflicting results on the effects of earlier invasive intervention in a heterogeneous population of acute non-ST elevation myocardial infarction (NSTEMI)[1]. Our aim was to explore in-hospital and 1-year follow-up outcomes in NSTEMI patients (pts) treated with PCI in the first 24 h, PCI after 24 h and optimal medical therapy (OMT).

Patients and Methods: From January 2012 to October 2017, 1898 pts were enrolled in the Croatian arm of the ISACS-CT registry (NCT01218776) 36% (n=685) with NSTEMI, of which 675 had available data on treatment modality. One-year follow-up was available in 217 (32%) of the NSTEMI patients.

Results: In 57% (n=386) of pts PCI was done within 24 h from symptoms onset, in 14% (n=95) after 24 h, while 29% (n=194) were discharged with OMT. Pts in the OMT group were significantly older, with more comorbidities, with a lower left ventricular ejection fraction (LVEF) value at discharge and greater delay from symptom onset to hospitalization (**Table 1**). Pts with PCI performed within 24 h had the greatest frequency of PCI reintervention during follow-up (PCI ≤ 24 h; PCI > 24 h; OMT: 15%; 3%; 0%; p=0.008). In-hospital mortality did not significantly differ between the groups (PCI ≤ 24 h; PCI > 24 h; OMT: 2.5%; 3.5%; 4.6%; p=0.220), yet in those with data on 1-year mortality (**Figure 1**), this was the highest in the OMT group (PCI ≤ 24 h; PCI > 24 h; OMT: 3.3%; 8.3%; 19.4%; p=0.005). Univariable regression suggested that PCI < 24 h significantly reduced mortality at 1-year follow-up (OR 0.14, 95% CI 0.04-0.51, p=0.03). The effect was lost after adjustment for age, LVEF and

TABLE 1. Patient demographic data.

	PCI in first 24 h (n=386)	PCI after 24h (n=95)	OMT (n=194)	P value
Male gender, n (%)	287 (73)	55 (58)	108 (55)	**<0.001**
Age, mean, (SD), years	64 (11)	68 (11)	73 (11.4)	**<0.001**
BMI, median, (P_{25}, P_{75}) kg/m^2	28.7 (26.1, 31.9)	28.6 (25.6, 32.6)	27.7 (25.1, 31.1)	0.183
Beta-blockers before initial admission, n (%)	150 (39)	37 (40)	90 (52)	**0.013**
Diuretics before initial admission, n (%)	116 (30)	42 (45)	94 (49)	**<0.0001**
Statins before initial admission, n (%)	112 (29)	37 (40)	72 (41)	**0.008**
Chronic kidney disease, n (%)	48 (14)	20 (23)	37 (25)	**0.005**
Diabetes mellitus, n (%)	122 (31)	38 (40)	70 (36)	0.177
Hypercholesterolemia n (%)	246 (64)	58 (63)	95 (55)	0.153
Hypertension, n (%)	320 (82)	77 (81)	162 (85)	0.590
Onset of symptoms to admission <6h, n (%)	185 (48)	42 (45)	112 (61)	**0.005**
Creatinine, median, (P_{25}, P_{75}) µmol/L	94 (80, 109)	90 (77, 114)	103 (85, 128)	**<0.001**
Discharge LVEF mean, (SD), %	53 (12)	51 (13)	49 (14)	**0.002**
Discharge EF <40%, n (%)	65(17)	20(21)	53 (27)	**0.010**
Hospitalization, median, (P_{25}, P_{75}), days	5 (4,8)	5 (4, 9)	8 (6,11)	**<0.001**

PCI – percutaneous coronary intervention, OMT – optimal medical therapy, BMI – body mass index, EF – left ventricular ejection fraction, SD – standard deviation, P – percentile, h – hours.

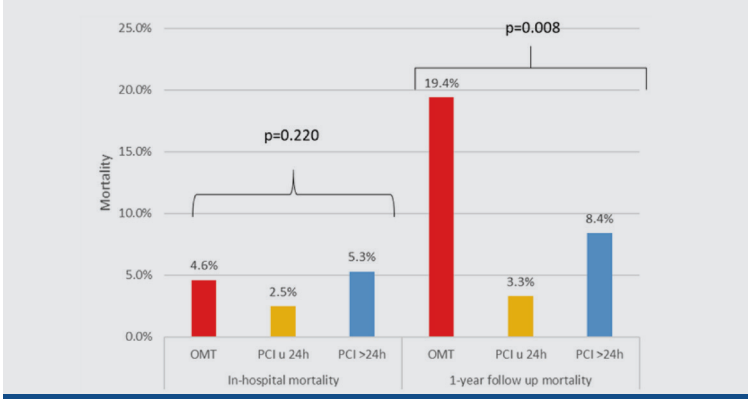

FIGURE 1. Patient survival.

OMT – optimal medical therapy, PCI – percutaneous coronary intervention.

praćenjem (**slika 1**) vidljiva je značajna razlika u preživljavanju (PCI ≤ 24 h; PCI > 24 h; OMT: 3,3%; 8,3%; 19,4%; p = 0,005). Univarijatna regresija pokazala je da PCI ≤ 24 h značajno smanjuje jednogodišnju smrtnost u odnosu na OMT (OR 0,14, 95% CI 0,04-0,51, p = 0,03), no učinak se gubi nakon podešavanja za dob, EF te kroničnu bubrežnu bolest (KBB), (p = 0,077), a u navedenom modelu su EF i KBB (OR 0,95, 95% CI 0,90-0,99, p = 0,049 i OR 6,31, 95% CI 1,67-23,8, p = 0,007) jedini značajni čimbenici koji utječu na preživljavanje.

Zaključak: Postoje značajne razlike bolesnika sa NSTEMI liječenih PCI ≤ 24 h, PCI > 24 h i OMT. Modalitet liječenja nema utjecaja na unutarbolničko preživljavanje, a OMT skupina bolesnika imala je znatno lošije jednogodišnje preživljavanje zbog prediktora jednogodišnje smrtnosti – EF i KBB.

chronic kidney disease (CKD) in a multivariable model, which proved LVEF (OR 0.95, 95% CI 0.90-0.99, p=0.049) and CKD (OR 6.31, 95% CI 1.67-23.8, p=0.007) as the only significant predictors of survival.

Conclusion: NSTEMI patients in the three treatment groups had different risk profiles at hospitalization, the OMT group being burdened with most comorbidities. The therapy of choice did not seem to have a significant influence on in-hospital or 1-year survival. Due to their higher risk profile, the pts treated with OMT had significantly lower 1-year survival, with lower LVEF and higher rate of CKD as predictors of primary outcome.

LITERATURE

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