Spolne razlike u unutarbolničkoj smrtnosti i smrtnosti nakon jedne godine praćenja bolesnika s akutnim koronarnim sindromom: iskustva iz Hrvatskog ogranka ISACS-CT registra

Gender differences in outcomes during initial hospitalization and at 1-year follow-up of patients with acute coronary syndrome: experience from the Croatian branch of the ISACS-CT Registry

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Uvod: Žene s akutnim infarktom miokarda s elevacijom ST-segmenta (STEMI) imaju lošije 30-dnevno preživljenje od muškaraca.[1] Cilj je istražiti spolne razlike u unutarbolničkoj smrtnosti i smrtnosti nakon jedne godine praćenja u Hrvatskom ogranku ISACS-CT registra (NCT01218776).

Bolesnici i metode: U razdoblju od siječnja 2012. do listopada 2017., uključeno je 1898 bolesnika: 46% (n=881) sa STEMI-jem, 36% (n=685) s akutnim infarktom miokarda bez elevacije ST-segmenta (NSTEMI) te 18% (n=332) s nestabilnom anginom (NA). Praćenje je provedeno na 33% (n=630) bolesnika, od kojih su 44% (n=275) STEMI, 34% (n=217) NSTEMI, te 22% (n=138) s NA.

Rezultati: Pri prijemu žene su bile starije, s više komorbiditeta te hospitalizirane s duljim vremenskim odmakom od početka simptoma (**slika 1**). Nije bilo spolnih razlika u

Background and Aim: Women with ST-segment elevation myocardial infarction (STEMI) have a higher 30-day risk of all-cause mortality.[1] The aim is to study gender differences in in-hospital mortality and mortality at 1-year follow-up in the Croatian branch of the ISACS-CT registry (NCT01218776).

Patients and Methods: From January 2012 to October 2017, 1898 patients were enrolled; 46% (n=881) presenting with STEMI, 36% (n=685) with non-ST-segment elevation myocardial infarction (NSTEMI), and 18% (n=332) with unstable angina (UA). Follow-up was performed on 33% (n=630) of the cohort, 44% (n=275) with STEMI, 34% (n=217) NSTEMI, and 22% (n=138) with UA.

Results: At admission women were older, more burdened with comorbidities, and arrived at the hospital with a longer delay from symptom onset (**Figure 1**).

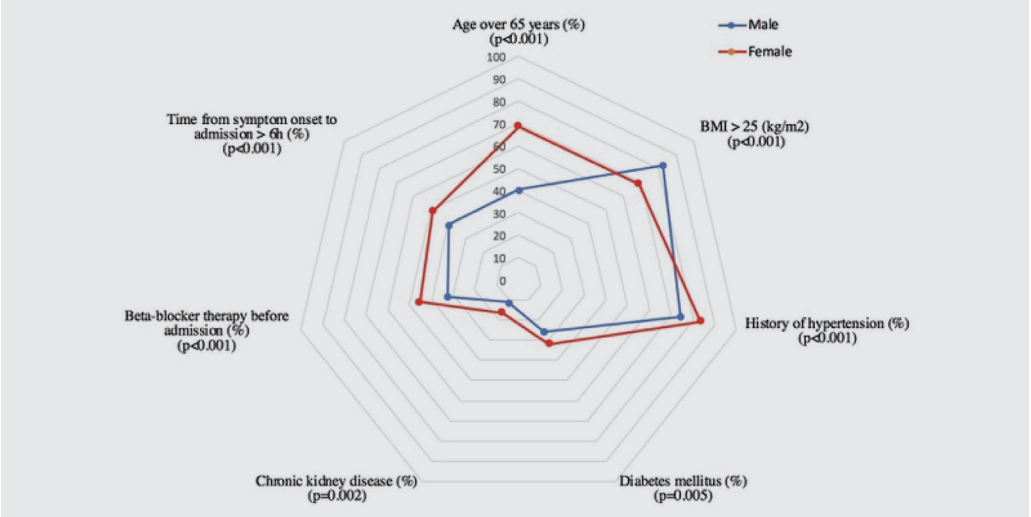

FIGURE 1. Gender differences in comorbidities and admission time in patients admitted due to acute coronary syndrome.

TABLE 1. Gender differences in mortality at hospital discharge and at 1-year follow-up.

	STEMI			NSTEMI			Unstable Angina		
Mortality	Male	Female	P value	Male	Female	P value	Male	Female	P value
In-hospital, n (%)	25 (4.1)	32 (12.1)	**<0.001**	15 (3.3)	9 (3.8)	0.827	4 (1.7)	0 (0)	0.261
1-year follow-up, n (%)	11 (5.7)	6 (7.4)	0.586	9 (6.3)	5 (6.8)	0.895	2 (1.9)	1 (3)	0.699

STEMI = ST-segment elevation myocardial infarction; NSTEMI = non-ST-segment elevation myocardial infarction.

padu ejekcijske frakcije (EF) < 40% tijekom inicijalne hospitalizacije. Žene sa STEMI-jem imale su znatno lošije unutarbolničke ishode (**tablica 1**). Nakon ispravke za utjecaj spola, unutarbolnička smrtnost pokazala se povezana s dobi (OR 1,09, 95% CI 1,06-1,13, p<0,001) te perkutanom koronarnom intervencijom (PCI) unutar 24 sata (OR 0,45, 95% CI 0,24-0,86, p=0,015). U trenutku otpusta nije bilo spolnih razlika u propisanim ACE-inhibitorima i statinima, no tijekom praćenja došlo je do značajnog pada u korištenju ACE-inhibitora (žene vs. muškarci: 68,3% vs. 81,1%, p=0,042) te statina kod žena (**slika 2**). U razdoblju praćenja kod 15,7% bolesnika EF pala je < 40%, 7,6% hospitalizirano je zbog ponovnog PCI, 2,7% zbog NSTEMI ili NA, 1,3% zbog srčane dekompenzacije, 0,8% zbog koronarnog premoštenja, 0,6% zbog moždanog udara ili prolazne ishemijske atake te 0,5% zbog STEMI. Nije bilo spolnih razlika u mortalitetu ili ostalim kliničkim ishodima. Nakon ispravke za vrstu akutnog koronarnog sindroma i spola - dob (HR 1,10, 95% CI 1,06-1,15, p<0,001), EF pri otpustu (HR 0,95, 95% CI 0,92-0,97, p<0,001) te PCI unutar 24 sata (HR 0,30, 95% CI 0,13-0,65, p=0,002) pokazali su se značajnim pokazateljima preživljenja. **Zaključak**: Rezultati odgovaraju trenutnim saznanjima o značajno višoj unutarbolničkoj smrtnosti žena sa STEMI-jem. Jednu godinu nakon akutnog koronarnog sindroma spolne razlike u smrtnosti i ostalim kliničkim ishodima nisu vidljive. Uočava se pad korištenja statina kod žena, što upućuje na potrebu za većim oprezom pri propisivanju i praćenju suradljivosti bolesnika.

During hospitalization, there were no gender differences in reaching an ejection fraction (EF) below 40%. Nevertheless, women with STEMI had significantly worse outcomes in the acute period (**Table 1**). After adjusting for gender, in-hospital mortality was associated with age (OR 1.09, 95% CI 1.06-1.13, p<0.001) and primary percutaneous coronary intervention (PCI) (OR 0.45, 95% CI 0.24-0.86, p=0.015). At hospital discharge there was no gender difference in prescribed ACE-inhibitors or statins, whereas after 1-year there was a significant reduction in ACE-inhibitor (female vs. male: 68.3% vs. 81.1%, p=0.042) and statin therapy in women (**Figure 2**). During follow-up, 15.7% of patients reached <40% EF, 7.6% underwent repeated PCI, 2.7% were readmitted with NSTEMI or UA, 1.3% hospitalized for heart failure, 0.8% had a coronary artery bypass graft (CABG) procedure, 0.6% a stroke or a transitory ischemic attack, and 0.5% were readmitted with STEMI. There was no gender difference in all-cause mortality or in any of the endpoints. After adjustment for the type of acute coronary event at initial presentation and gender - age (HR 1.10, 95% CI 1.06-1.15, p<0.001), EF at discharge (HR 0.95, 95% CI 0.92-0.97, p<0.001) and primary PCI (HR 0.30, 95% CI 0.13-0.65, p=0.002) proved to be significant predictors of survival. **Conclusion**: Our results concur with the current findings of significantly increased in-hospital mortality of female STEMI patients. At 1-year follow-up there was no gender disproportion in mortality or other endpoints. A decrease in statin therapy was noted in women during follow-up, suggesting more through control might be needed to maintain the prescription of statins or compliance.

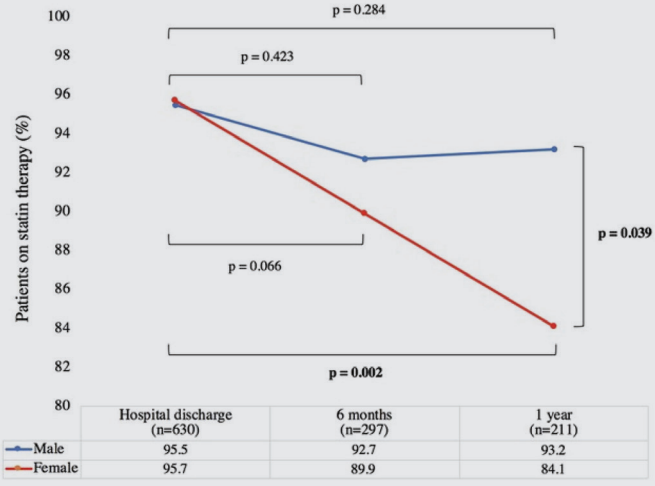

FIGURE 2. Statin therapy over time in patients with acute coronary syndrome.

LITERATURE

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