Lijevi radijalni pristup u primarnoj perkutanoj koronarnoj intervenciji u bolesnika s infarktom miokarda s elevacijom ST-segmenta

Left radial approach in patients with ST segment elevation myocardial infarction undergoing primary percutaneous coronary intervention

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KLJUČNE RIJEČI: infarkt miokarda s elevacijom ST-segmenta, perkutana koronarna intervencija, lijevi radijalni pristup.

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UVOD: Od 2011. primarni postav našeg laboratorija za invazivnu kardiologiju promijenjen je s femoralnog u lijevi radijalni i danas se oko 95% svih postupaka učini lijevim ili desnim „nefemoralnim“ pristupom. Primarna perkutana koronarna intervencija (PCI) u bolesnika s infarktom miokarda s elevacijom ST-segmenta (STEMI) je najzahtjevniji oblik koronarne intervencije i stoga operateri moraju biti dobro obučeni u radijalnom pristupu. Cilj istraživanja bio je utvrditi je li u bolesnika sa STEMI, kojima je primarna PCI učinjena lijevim radijalnim pristupom, iskustvo operatera, kao i doba dana kada je intervencija učinjena, utjecalo na uspjeh postupka, bolesnikovu i operaterovu sigurnost.

METODE: U ovu retrospektivnu analizu uključeno je 596 bolesnika sa STEMI. Liječeni su u našem centru primarnom PCI putem lijevog radijalnog pristupa od siječnja 2011. do lipnja 2014. godine. Kako bi analizirali utjecaj „krivulje učenja“ na proceduru, taj vremenski period smo podijelili na razdoblja od 6 mjeseci te na taj način dobili 7 skupina bolesnika kojima smo usporedili varijable uspjeha intervencije te sigurnosti bolesnika i operatera. U drugoj su analizi, ovisno o dobu dana kada je zahvat učinjen, bolesnici bili podijeljeni u tri skupine (A: 8-16 h, B: 16-24 h i C: 24-8 h).

REZULTATI: Utvrdili smo da je vrijeme fluoroskopije bilo značajno dulje i da je utrošena veća količina kontrasta u prvoj godini, a doza zračenja čak u prvih godini i pol nakon promjene postava iz femoralnog u lijevi radijalni. S druge strane, nije bilo značajnih razlika u uspjehu intervencije, trajanju postupka kao i vremenu „od vrata do balona“. Drugom analizom nismo pronašli da je doba dana kada je postupak učinjen imalo značajan utjecaj na bilo koji od analiziranih varijabli.

ZAKLJUČAK: Vrijeme fluoroskopije, količina utrošenog kontrasta i doza zračenja viši su u bolesnika sa STEMI liječenih primarnom PCI u prvoj godini nakon promjene postavki kateterizacijskog laboratorija s femoralne u lijevu radijalnu. S vremenom i iskustvom operatera, mogu se očekivati značajna poboljšanja.

INTRODUCTION: Since 2011 the primary setup of our cath lab has been changed to left radial, and nowadays approximately 95% of all procedures are performed with either left or right wrist access. Primary percutaneous coronary intervention (PCI) in patients (pts) with ST segment elevation myocardial infarction (STEMI) are the most demanding and operators need to be well trained in the radial approach. The aim of the study was to establish whether the operators experience and the time of day when the procedure was done, had any influence on the success of the procedure, or on patient and operator safety in STEMI pts undergoing primary PCI with left radial approach.

PATIENTS AND METHODS: In this retrospective analysis we included 596 pts with STEMI, treated in our Center from January 2011 to June 2014 with primary PCI with left radial approach. To analyze the learning curve variability we divided pts into 6 month period groups, with the total of 7 groups. The second analysis was according to the time of day when pts arrived to the catheterization lab and so pts were divided into three groups (A: 8-16 h, B: 16-24 h and C: 24-8 h).

RESULTS: We found that fluoroscopy time was significantly longer and that a larger amount of contrast was used in the first year after changing the setup from femoral to left radial. Even so, the procedure radiation dose was significantly higher in the first year and a half. On the other hand, there was no significant difference in procedure success, door to balloon time and total procedure time in all analyzed groups. In the sub analysis we did not find that the time of day when the procedure was done had any significant influence on any of the analyzed parameters.

CONCLUSION: Fluoroscopy time, amount of contrast used and fluoroscopy dose are higher in STEMI pts treated with primary PCI in the first year after changing the setup of the catheterization lab to left radial. In time and with more experience of the operators, they can be expected to be significantly improved.

LITERATURE

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