



THE INFLUENCE OF THE PATIENT'S AGE ON THE DURATION OF THE PROCEDURE AND THE AMOUNT OF RADIATION DELIVERED WHEN PERFORMING DIAGNOSTIC CORONARY ANGIOGRAPHY

UTICAJ DOBI PACIJENTA NA TRAJANJE PROCEDURE I KOLIČINU ISPORUČENOG ZRAČENJA PRI IZVOĐENJU DIJAGNOSTIČKE KORONARNE ANGIOGRAFIJE

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ABSTRACT

The aim of the research was to determine whether the age of the patient affects the duration of the procedure and the amount of ionized radiation delivered when performing diagnostic coronary angiography. The research was conducted at the Clinic for Invasive Cardiology of the Public Health Institution "University Clinical Center" Tuzla in the period from December 2018. to January 2020. The research included a total sample of 240 respondents, average chronological age of 62.60 ± 9.22 years, ranging from 24 to 85 years. Out of a total of 240 respondents, in 121 respondents coronary angiography was performed using transradial arterial approach and 119 by performing a transfemoral arterial approach. The total sample was divided into two subsamples of respondents. The first sub-sample consists of respondents up to 65 years of age, and the second sub-sample consists of respondents over 65 years of age. During each performance of coronary angiography, the duration of the procedure (in minutes and seconds) and the amount of radiation delivered during the procedure (in mGy) were measured. The research data were processed using the method of parametric and non-parametric statistics. The Mann-Whitney U test was used to verify the research objective. Based on the obtained research results, it can be concluded that in patients over 65 years of age, the duration of the coronary angiography procedure is longer, and is at the limit of statistical significance ($p= 0.057$). The amount of delivered radiation is higher in respondents over 65 years of age, but it is not statistically significant ($p= 0.396$).

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Keywords: Coronary angiography, coronary disease, procedure duration, age, amount of delivered radiation.

SAŽETAK

Cilj istraživanja je bio utvrditi da li dob pacijenta utiče na trajanje procedure i količinu isporučenog zračenja pri izvođenju dijagnostičke koronarne angiografije. Istraživanje je sprovedeno na Klinici za invazivnu kardiologiju JZU UKC Tuzla u periodu od decembra 2018. do januara 2020. godine. Istraživanjem je obuhvaćen ukupan uzorak od 240 ispitanika, prosječne hronološke dobi $62,60 \pm 9,22$ godina raspona od 24 – 85 godina. Od 240 ispitanika 121 je urađen transradijalnim arterijskim pristupom a 119 transfemoralnim arterijskom pristupom. Ukupan uzorak je podijeljen na dva subuzorka ispitanika. Prvi subuzorak čine ispitanici do 65 godina starosti, a drugi iznad 65 godina starosti. Tokom svakog izvođenja koronarne angiografije mjerilo se vrijeme trajanja procedure (u minutama i sekundama) i količina isporučenog zračenja za vrijeme procedure (u mGy). Podaci istraživanja obrađeni su metodom parameterijske i neparametrijske statistike. Za provjeru postavljenog cilja istraživanja primjenio se Mann-Whitney U test. Na osnovu dobijenih rezultata istraživanja može se zaključiti da je kod pacijenata iznad 65 godina trajanje procedure koronarne angiografije duže, te je na granici statističke signifikantnosti ($p= 0,057$). Količina isporučenog zračenja je veća kod ispitanika iznad 65 godina ali nije statistički signifikantna ($p= 0,396$).

Ključne riječi: Koronarna angiografija, koronarna bolest, trajanje procedure, dob, količina isporučenog zračenja.