

Is there an impact of deep sedation with propofol on adenoma detection rate, polyp detection rate and cecal intubation rate in elderly patients?

Postoji li utjecaj duboke sedacije propofolom na stope detekcije adenoma, detekcije polipa i intubacije cekuma u starijih bolesnika?

IRMA ŠIRANOVIĆ PONGRAC, Vedran Tomašić, Petra Čačić, Tajana Pavić, Neven Baršić, Alen Biščanin, Ivan Lerotić, Davor Hrabar

KBC Sestre milosrdnice, Zavod za gastroenterologiju i hepatologiju
irma.siranovic1995@gmail.com

Background and aims: Early detection of colon adenomas and polyps reduces the risk of colorectal cancer development. Adenoma detection rate (ADR), polyp detection rate (PDR) and cecal intubation rate (CIR) are quality indicators for screening or diagnostic colonoscopy. The available data from previously conducted research regarding ADR, PDR and CIR in groups of patients who were deeply sedated with propofol and those who underwent colonoscopy without sedation are inconclusive. The aim of this study was to determine the effect of deep sedation vs. no-sedation on ADR, PDR and CIR in group of elderly patients.

Methods: This was a retrospective cohort study which included adult patients over the age of 60, presenting for a first screening or diagnostic colonoscopy performed over a 4-month time. Participants' characteristics were assessed using descriptive statistics. Normal distribution was assessed using Kolmogorov-Smirnov and Shapiro-Wilk tests. Continuous variables were analyzed using Mann-Whitney test and categorical variables using Chi-square or Fisher exact test. Binary logistic regression was conducted to identify significant predictors of the outcomes. Two-tailed tests were conducted, and statistical significance was considered when $p < 0.05$.

Results: Among 196 patients (53.9% female; mean age: 68.5 years) deep sedation was performed in 97 patients (48.2%). Total PDR was 51.2%, ADR was 18.8%, and CIR was 94.5%. Overall, no significant difference was shown in PDR and ADR between no-sedation and deep sedation groups ($\chi^2(1, N = 196) = 0.498$, $P = 0.48$, $\chi^2(1, N = 196) = 0.47$, $P = 0.49$ respectively). After adjustments for BMI, colon diverticulosis and history of abdominal surgery differences, CIR was significantly higher in deep sedation group ($\chi^2(1, N = 196) = 6.407$, $P = 0.01$).

Conclusion: In our mixed cohort of elderly patients undergoing screening and diagnostic colonoscopies, use of propofol-induced deep sedation did not improve ADR or PDR. On the other hand, CIR was influenced by deep sedation. Therefore, further investigations are needed to identify the impact of deep sedation on colonoscopy quality indicators in elderly groups of patients.

Keywords: Polyp detection rate; Adenoma detection rate; Deep sedation; Cecal intubation rate; Elderly patients