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HORMONSKI ODGOVOR KOD ABDOMINALNIH HISTEREKTOMIJA

Danijela Jovanović Radojević[1], Snežana Živančević Simonović[2], Vesna Malenković[3], Biljana Miličić[4] i Dragan Milovanović[5]

[1]Centar za anesteziju, KC Kragujevac,
[2]Centar za nuklearnu medicinu KC Kragujevac, Institut za patofiziologiju Medicinski fakultet Kragujevac,
[3]Centar za anesteziju KBC Bežanijska kosa Beograd,
[4]Institut za anesteziju KC Srbije Beograd,
[5]Institut za farmakologiju, Medicinski fakultet i KC Kragujevac, Kragujevac

HORMONAL RESPONSE IN ABDOMINAL HYSTERECTOMY

Danijela Jovanovic Radojevic[1], Snezana Zivancevic Simonovic[2], Vesna Malenkovic[3], Biljana Milicic[4] and Dragan Milovanovic[5]

[1]Center for Anesthesia and Resuscitation, Clinical Centre of Kragujevac, Kragujevac
[2]Center for Nuclear Medicine, Clinical Centre of Kragujevac, Institute for Pathophysiology, Medical Faculty Kragujevac
[3]Center for Anesthesia, Clinical Hospital Center, Bezanijska kosa, Belgrade
[4]Institute for Anesthesia and Resuscitation, Clinical Center of Serbia, Belgrade
[5]Institute for Pharmacology, Medical Faculty Kragujevac and Clinical Center Kragujevac, Kragujevac, Serbia

SAŽETAK

Uvod. *Anestetici i tehnike anestezije utiču na dinamiku hormonskog stres odgovora u toku hirurške intervencije. Mali je broj studija koje se bave poređenjem efekata anestetika iz različitih grupa. Cilj ovog rada je bio da se ispita uticaj inhalacione anestezije sa sevofluranom u odnosu na intravensku anesteziju propofolom i fentanilom na serumske koncentracije kortizola, prolaktina i glikemije kao i na hemodinamski odgovor pacijenata u toku operacije.*

Bolesnici i metod. *Studija je bila prospektivna, kontrolisana i otvorenog dizajna u uslovima realne kliničke prakse. Uključeno je 40 pacijentkinja, koje su bile podvrgnute abdominalnoj histerektomiji. Kod 20 ispitanica je vođena inhalaciona anestezija sa sevofluranom (grupa 1) a kod 20 ispitanica je vođena intravenska anestezija sa propofolom i fentanilom (grupa 2). Efikasnost smo procenjivali na osnovu sermskih koncentracija kortizola, prolaktina i glikemije, kao i na osnovu hemodinamskih parametara.*

Rezultati. *Vrednosti glikemije se statistički značajno povećavaju i u Grupi 1 i 2 u četiri sukcesivna vremena merenja i to: 4,9±0,93 mM (srednja vrednost±standardna devijacija), 4,73±1,12 mM, 5,78±1,17 mM i 6,01±2,22 mM, odnosno: 5,54±0,73 mM, 5,65±0,73 mM, 6,45±0,74 mM i 6,94±1,54 mM. Između grupa nije bilo statistički značajne razlike. Srednje vrednosti kortizola u Grupi 1 su bile 506,75± 215,94 nmol/l i 633,69±289,84 nmol/l a u Grupi 2: 724,67±418,62 nmol/l i 742,78±278,79 nmol/l. Unutar grupa nije bilo statistički značajne razlike u vrednostima kortizola ($p>0.05$). Srednje vrednosti prolaktina u Grupi 1 su bile 523,63±269,26 mIU/L i 2147±292,89 mIU/l a u Grupi 2 402,22±124,16 mIU/l i 1869,0±224,8 mIU/l ($p>0.05$). Unutar grupa vrednosti prolaktina su bile značajno povišene.*

Zaključak: *Obe tehnike anestezije su ostvarile supresiju hormonskog odgovora bez statistički značajnih razlika, sa zadovoljavajućim hemodinamskim parametrima u posmatranom periodu hirurške intervencije.*

Ključne reči: *histerektomija, sevofluran, propofol, fentanil, hidrokortizon, prolaktin*

ABSTRACT

Introduction. *The dynamics of neurohumoral stress response during surgery is influenced by anesthetics and anesthesia techniques. Clinical trials, which compared the influence of different kinds of anesthesia, inhalational and intravenous, were rare. The aim of this study was to compare the influence of inhalational anesthesia with sevoflurane with intravenous propofol-fentanyl anesthesia on glucose, cortisol and prolactin serum levels as well as on hemodynamic parameters.*

Patients and method. *The study was prospective, controlled, open-labeled with a pragmatic design. The total of 40 female patients, who underwent abdominal hysterectomy anesthesia, were included. Twenty patients, who were scheduled for inhalation sevofluran anesthesia, had been randomly chosen (group 1) as well as twenty patients scheduled for intravenous propofol-fentanyl anesthesia (group 2). Primary outcome variables were the serum levels of cortisol, prolactin (assayed with RIA method) and glucose. Secondary outcome variables were the hemodynamic parameters. The statistical analysis included descriptive statistics and hypothesis testing.*

Results. *The mean values of glucose levels in both groups were significantly higher in time: in the group 1, they were: 4,9±0,93 mM , 4,73±1,12 mM, 5,78±1,17 mM, 6,01±2,22 mM ($p>0.05$), and in the group 2, they were: 5,54±0,73 mM, 5,54±0,73 mM, 6,45±0,74 mM, 6,94±1,54 mM ($p>0.05$). Within groups, the glucose levels were significantly higher ($p=0,001$). The mean cortisol serum levels in the group 1 were 506,75±215,94 nmol/l and 633,69±289,84 nmol/l and in the group 2 were 724,78±418,62 nmol/l and 742,78±278,79 nmol/l ($p>0.05$). Within groups, the cortisol levels were not significantly different ($p>0.05$). The mean prolactin serum levels in the group 1 were 523,63 269,26mI/L and in the group 2 were 402,22±124,16 mU/l and 1869,0±224,8 mU/l ($p>0.05$). Within groups, the prolactin levels were significantly higher.*

Conclusion. *Both types of anesthesia achieved the suppression of stress response without statistically significant differences, with satisfying hemodynamic stability during the observed period of surgical intervention.*

Key words: *hysterectomy, sevoflurane, propofol, fentanyl, hydrocortisone, prolactin*

Mr. sc. dr Danijela Jovanović Radojević
Centar za anesteziju i reanimaciju, KC Kragujevac,
Zmaj Jovina 30, 34000 Kragujevac