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Usage of sedation in critical patients

Abstract:

The study focused on management of sedation in critical patients. For sedation were used Midazolam, Diazepam and Natrium-thiopental. According to therapeutic impact Midazolam was preferred. The necessity of its usage in critical conditions was advised.

Keywords: Sedation, Midazolam, Diazepam, Natrium-thiopental

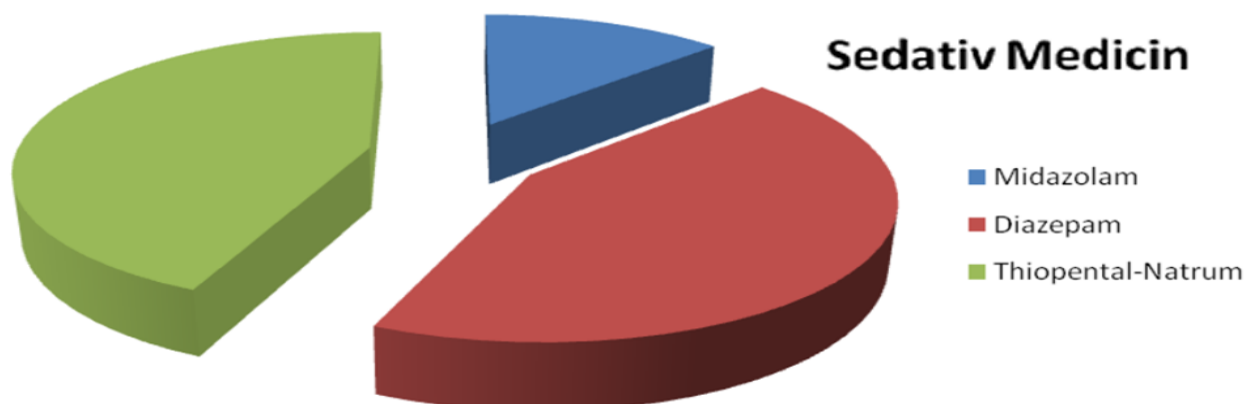
Introduction:

Were studied features of using sedation in critically ill patients, for sedation were used Midazolam, Diazepam and Natrium-thiopental. Mentioned medicine has next features: Sedative, anticonvulsive, and analgesic. Were studied 86 patients in critical condition, patient's position in bed was passive during using sedative medicine, there neurological status of this patients were applicable for checking, but those patient have no fear of pain feeling and were indifferent to the critical condition that they had. Research results showed that using of this sedative medicine in critical conditions is effective for sedation meanings. The most of patients that have critical conditions are in unconscious situation thus most of them are having there consciousness if the pathological agent causes the brain function.

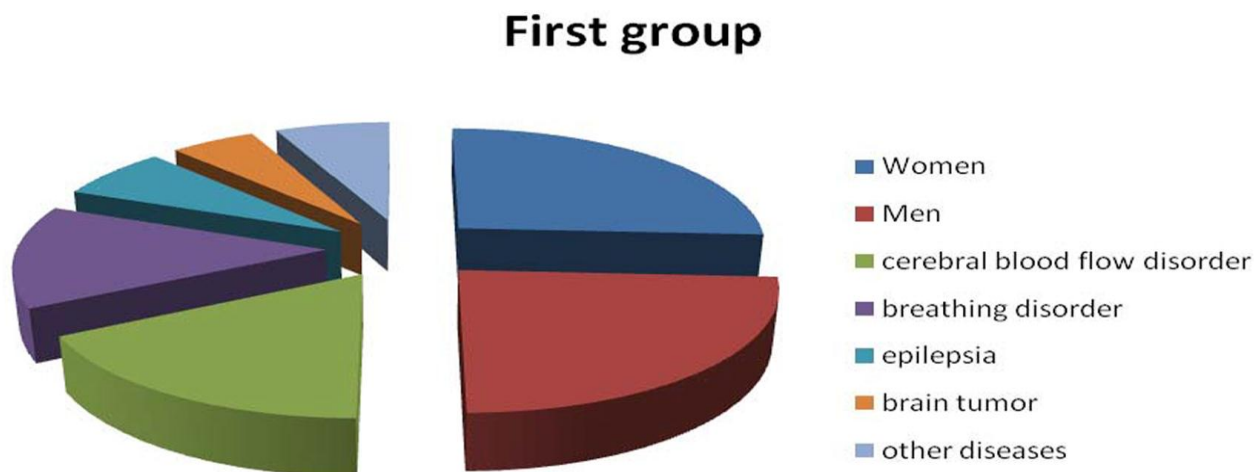
Out of this in this kind of patients it is recommended to use sedation during witch consciousnesses is present in patient but the patient is out of understanding critical situation. This kind of patients are not is sleep but, they are indifferent to their life danger situation. For satisfying upper mention sedative condition was studied Midazolam, Diazeopam and Natrium-thiopental.

Materials and methods:

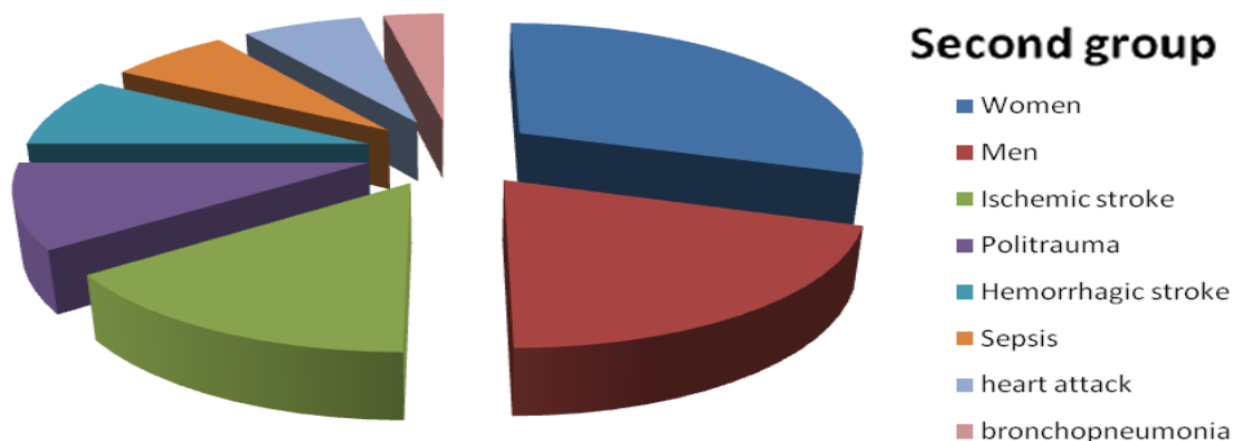
During research were studied 86 patients, those patients critical condition was caused by: acute cerebral blood flow disorder, politrauma, gastroduodenal bleeding, medicament intoxication, bilateral acute pneumonia and other. The patients were treated with following drugs and dosage during 3-50 days: Midazolam 0.2-0.30mg/kg/hour, Diazepam 0.5-1.0mg/kg/hour and Natrium-thiopental 0.5-1.0mg/kg/hour of course with tis treatment patients were treated by guidance of state standards (Z.Kheladze 2002).



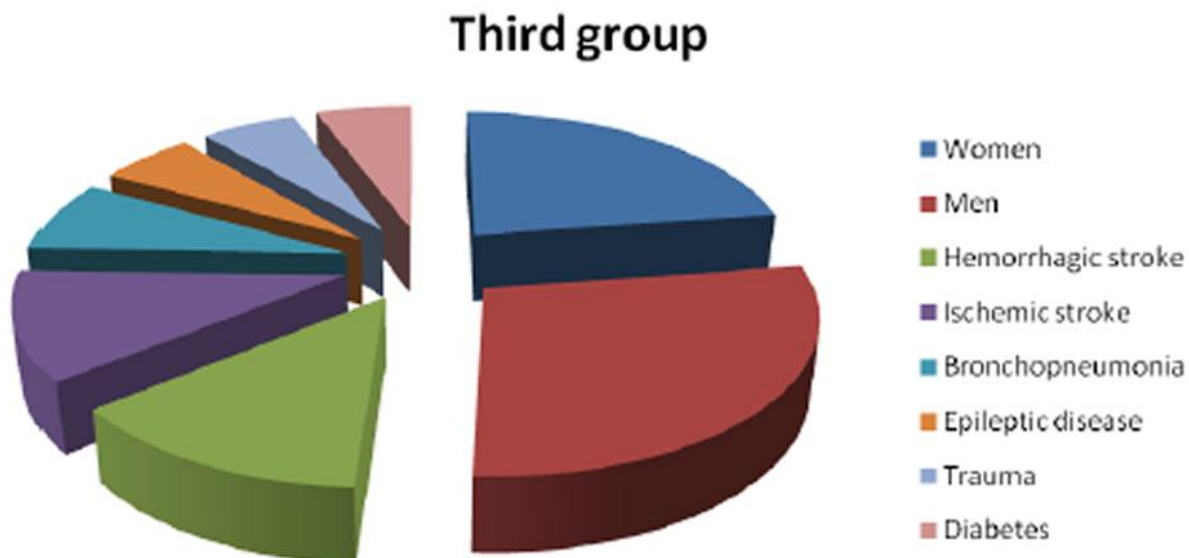
In the first group for sedation meanings was given Midazolam hydrochloride, dosage was 0.1-0.5mg/kg/hour in this group were admitted 29 patients, woman was 15, men was 14 from this group 10 cases critical condition were associated with acute cerebral blood flow disorder, 8 cases were associated with acute breathing disorder, 4 cases were associated with epilepsy, 3 cases were associated with brain tumor and 4 cases with other diseases.



In the second group for sedation meanings was given Diazepam permanent intravenous infusion was proceeded in dosage 0.1-0.5mg/kg/hour, in this group were admitted 30 patients, woman was 18, men was 12 from this group 17 patient's age was 60 year and less and 13 patient's age was 60 year and more. In this group 9 cases critical conditions were associated with ischemic stroke, 6 cases were associated with politrauma, 4 cases were associated with acute sepsis, 4 cases with acute heart attack, 5 cases with hemorrhagic stroke and 2 cases with bronchopneumonia.



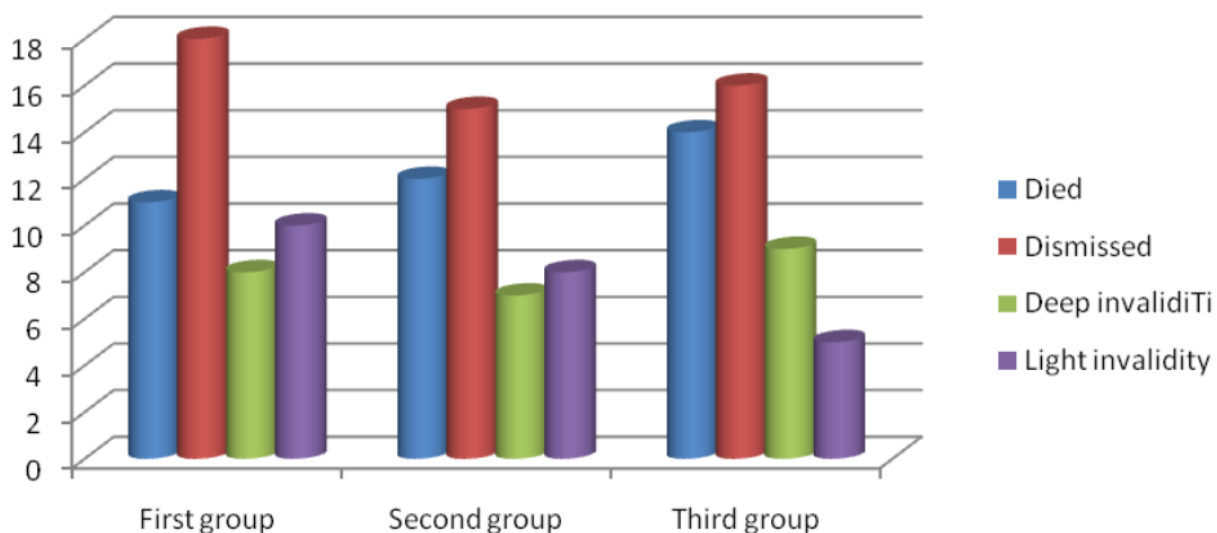
In the third group the dosage of Natrium-thiopental. was 0.5-1.0mg/kg/hour by permanent intravenous infusion of this drug was preceded to 27 patients, from this woman were 12 and man were 15. The age of 12 patients were 60 year and less from this group 7 cases critical condition were associated with hemorrhagic stroke, 6 cases with ischemic stroke, 4 cases with bilateral bronchopneumonia, 3 cases with epileptic disease, 3 cases with trauma and 3 cases with diabetes.



Results and Discussions:

Selected 86 patients were divided into 3 groups. The first group patients were given Midazolam hydrochloride, in the second group Diazepam (Valium) and in the third group Sodium thiopental by intravenous infusion. The treatment of the patients was during preceded 3-50 days.

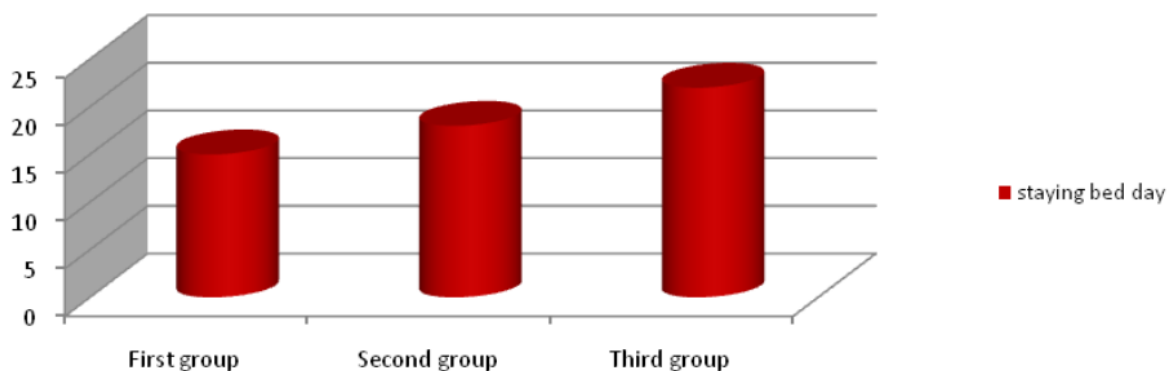
In the first group 11 patients died, 18 patients dismissed from this 10 with light and 8 with deep invalidity disorders. In the second group 14 patients died, 16 dismissed from this 9 with deep and 7 with light invalidity quality. In the third group 12 patients died, 15 patients dismissed from this 8 with deep and 7 with light invalidity quality disorders.



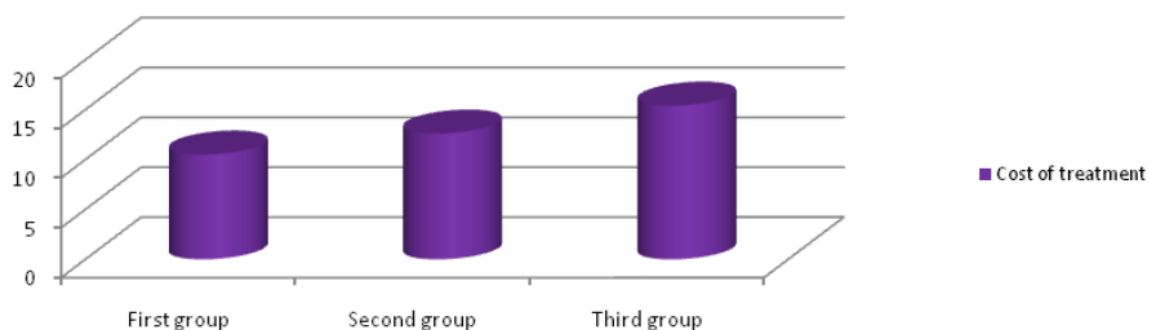
The average of staying bed day delay in the clinic consisted in the first group 15 day in the second group 18 day and in the third group 22 day. The average cost of treatment constituted: in the first group 10.500 lari, in the second group 12.600 lari. In the third group 15.400 lari.

All three groups were treated by guidance of state standards. (Z.kheladze 2002)

staying bed day

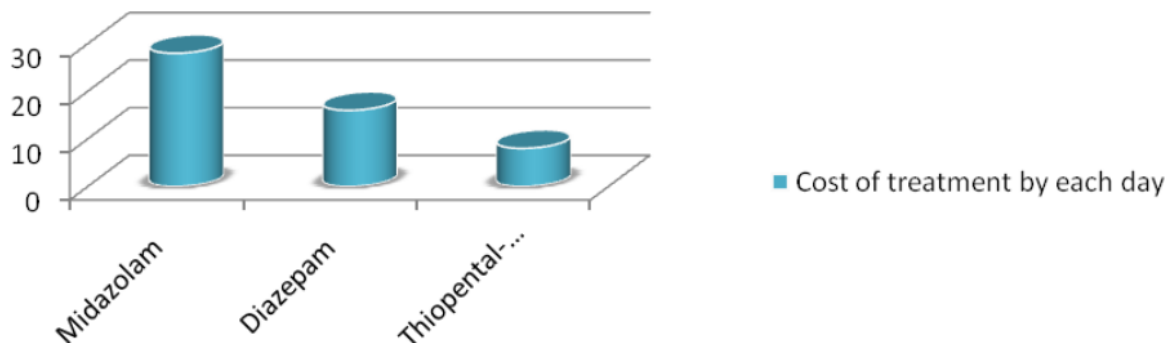


Cost of treatment



Research results showed that during treatment with Midazolam hydrochloride management of subconsciousness is easier than during treatment with Diazepam. With this it is noteworthy that during treatment with Midazolam hydrochloride patients were living in a trance condition much more early than during treatment with Diazepam, and the condition of memory (short and long) after use of Midazolam hydrochloride patients remembered the treatment period but during treatment with Diazepam memory recovering began with several days delay. Natrium-thiopental has the same characteristics as Midazolam hydrochloride and Diazepam but the patient that have been treated with Natrium-thiopental were living in a trance condition with much more delay than during treatment with Midazolam hydrochloride and Diazepam, with this should be mentioned that Midazolam hydrochloride has much more less toxic effect and has a gentle character in action during that kind of sedation patients had less feeling of unhappiness and were much more optimistic to their critical condition during sedation period. By effect of sedation vital organ function disorder had no place with this were not found changes in laboratory results during treatment with these three methods most cost ineffective showed treatment with Natrium-thiopental and in this range average of treatment cost of subconsciousness by each day consisted 8 lary when the treatment with Diazepam costed 16 lary and with Midazolam 28 lary.

Cost of treatment by each day



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სედაციის გამოყენება კრიტიკული ავადმყოფების მკურნალობის პროცესში

შესწავლილია სედაციის თავისებურებანი კრიტიკულ ავადმყოფებში. სედაციის მიზნით გამოყენებული იყო მიდაზოლამი, დიაზეპამი და ნატრიუმის თიოპენტალი. აღნიშნულ პრეპარატებს გააჩნიათ სედაციური, ანტიკონვულსიური და ანალგეზიური თვისებები. გამოკვლეული იქნა კრიტიკულ მდგომარეობაში მყოფი 61 პაციენტი. შედეგებმა უჩვენა, რომ კრიტიკული მდგომარეობათა დროს სედაციის მიზნით ყველაზე ეფექტურია მიდაზოლამის გამოყენება.

მიდაზოლამის მიღებისას პაციენტთა მდებარეობა საწოლში იყო პასიური, ნევროლოგიური სტატუსის შეფასება შესაძლებელი იყო ამასთან ავადმყოფებს არ ჰქონდათ ტკივილის ან შიშის გრძობა და ინდიფერენტულ დამოკიდებულებას ამჟღავნებდნენ იმ კრიტიკული მდგომარეობის მიმართ, რომელშიც ისინი იმყოფებოდნენ.