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Advantages of using conduction anaesthesia during the lower extremities surgeries

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ПЕРЕВАГИ ВИКОРИСТАННЯ ПРОВІДНИКОВИХ МЕТОДІВ АНЕСТЕЗІЇ ПРИ ПРОВЕДЕННІ ОПЕРАЦІЙ У ХВОРИХ ІЗ СУПУТНЬОЮ ПАТОЛОГІЄЮ

We analyzed the benefits, effectiveness and possible complications of using conduction anesthesia in patients of traumatology-orthopaedics and vascular surgery departments. We analyzed the treatment outcomes of 1326 patients during the period of 2014–2015 years. The patients' age was from 22 to 81 years. The comparative analysis of safety, efficacy and complications risk of conduction anesthesia with other types of anesthesia was made.

Ми здійснилили аналіз характеру знеболювань, їх ефективності та частоти можливих ускладнень при проведенні провідникової анестезії у хворих відділень травматології-ортопедії та судинної хірургії, які мали супутню патологію. За період 2014–2015 рр. було проаналізовано результати лікування 1326 хворих. Вік пацієнтів – від 22 до 81 року. Проведено порівняльний аналіз обґрунтованості та виникнення ризику ускладнень провідникової анестезії з іншими видами анестезіологічного забезпечення.

Staging of problem and analysis of recent researches and publicatios. The local anesthesia methods get anesthesia by disabling conduction in particular nerve or combination of nerves, maintain patient consciousness and breathing. It can be the only one safe method of surgical intervention for preserving vital body functions in patients with severe concomitant somatic pathology and in elderly patients. That is why regional, namely conduction anesthesia, is the best way for providing anesthesia care to patients with concomitant pathology, especially cardiovascular. Recently regional anesthesia is considered as one of the main methods of because of big choice of local anesthetics, reducing their toxicity and prolongation of time analgesic action, improving provision of needles for anesthesia.

Materials and methods. We analysed benefits, effectiveness and possible complications in patients with concomitant pathology in the department of traumatology and orthopedics and vascular surgery. We analyzed results of treatment of 1326 patients during 2014–2015. The patients’ age from 22 to 81 years. The distribution of patients of traumatology and orthopedics presented in Table 1.

So, 349 patients (38.4 %) had conduction and combined conduction intravenous anesthesia. 124 patients had concomitant pathology of different profile (cardiovascular, endocrine, pulmonary). The distribution of patients according to the presence of comorbidity presented in Table 2.

We analyzed the structure of morbidity and selecting the method of anesthesia in the department of vascular surgery. It presented in Table 3.

219 patients (52.3 %) held conduction and conduction combined intravenous anesthesia. 154 patients had different comorbidity. We distributed the patients according to nosology (Table 4).

Table 1

Type of anesthesia	Number of patients	Rate
General anesthesia	387	42,7
Combined intravenous and conduction anesthesia	208	22,9
Conduction anesthesia	141	15,5
Spinal anesthesia	124	13,7
Epidural anesthesia	39	4,3
Combined spinal and epidural anesthesia	8	0,9
Together	907	100

Table 2

Comorbidity	Number of patients	Rate
IHD. Atherosclerotic cardiosclerosis	50	40,3
Adiposity II–III	30	24,2
Diabetes	22	17,8
COPD II	16	12,9
IHD. Ischemic stroke	6	4,8
Together	124	100

Table 3

Type of anesthesia	Number of patients	Rate
General anesthesia	87	20,8
Combined intravenous and conduction anesthesia	150	35,8
Conduction anesthesia	69	16,5
Spinal anesthesia	74	17,6
Epidural anesthesia	16	3,8
Combined spinal and epidural anesthesia	23	5,5
Together	419	100

Table 4

Comorbidity	Number of patients	Rate
IHD	42	27,2
Hypertension II	32	20,8
Diabetes	63	41
COPD II	12	7,8
IHD. Ischemic stroke	5	3,2
The number of patients with comorbidities who had regional anesthesia	154	100

Research results and their discussions. The conduction anesthesia (or combined with intravenous anesthesia) is a rational way of anesthesia in orthopedic surgery and trauma patients and patients of vascular surgery, even in polimorbing patients. 568 (42.8 %) surgery was performed with conduction anesthesia. 278 patients (21 %) had concomitant diseases of various kinds. During the conduction anesthesia there is a smaller percentage of intra- and postoperative complications compared with other types of anesthesia. 4 patients (1.9 %), which was held conduction anesthesia had got post-traumatic neuritis of the sciatic nerve. During spinal anesthesia in 6 women (3 %) observed intraoperative hypotension and 13 patients complained of headaches pronounced after surgery (6.6 %). In 19 patients (5.3 %) who underwent intravenous anesthesia was laryngospasm.

Conclusions. 1. The conduction anesthesia reasonable to use orthopedic, trauma and vascular patients with concomitant diseases.

2. The conduction anesthesia avoid systemic complications that can occur during general anesthesia (respiratory depression, impaired hemodynamics).

3. The conduction anesthesia should be performed during surgery in patients with concomitant diseases, given the lower interest rate and lower for intraoperative and postoperative complications.

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