

IN MILITARY PERSONNEL PERFORMED AND UNILATERAL SPINAL - EPIDURAL ANESTHESIA OPERATION AND POST-OPERATION I TREATMENT OF THROMBOEMBOLIC ASORATNOGO COMPLEX PREVENTION

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Abstract

In modern medicine, especially in the early period after traumatology and orthopedic surgery, the old preventive measures of deep vein thrombosis of the legs, pulmonary artery thromboembolism (DPE) are still kept up-to-date. You may notice deformations of gonarthrosis and coxarthrosis, using a heterogeneous virus, entering the hip and knee, using components that can be used and capsules of it, which you could use it independently [1]. Especially, the Covid-19 pandemic caused the pathological process of the hip and knee joints to accelerate after recovery from the disease in the military servicemen suffering from this disease. Currently, there are two views on arthrosis of the hip and knee joints in patients with Covid-19; the first is the presence of microthrombi in the vessels that supply blood to the femoral head, and the second is associated with the flushing out of the tissue of corticosteroids given to patients as membrane stabilizers during the disease. Ортопедический уход за больными, вызванными остеоартрозом, заключается в эффективной стимуляции, но возможно и восстановление или синдрома, вызванного физиологией. [2]. Complete endoprosthetic surgery is considered to be a procedure performed in the absence of effective treatment [3].

Keywords

Pulmonary artery, thromboembolism, deep venous thrombosis, unilateral spinal anesthesia

These procedures are not without many risks and complications. The most common and life-threatening of these are complications of venous thromboembolic diseases. In the literature, deep vein thrombosis of the legs occurs in 4.3-60% of cases, DVT in 0.9-28% of cases, of which 0.1-2% result in death. [4,5]. How to prevent thromboembolic diseases 2 times a day or after treatment:

1. Non-specific orthopedic surgery, practical methods of its operations, early post-operation verticalization and basic training of physical activity with active forms of stretching, keeping the water-electrolyte balance and normal status in the indicators, early restoration of muscle movement and tone, elastic bandages for the eyes, popliteal and pneumocompression.

2. Use of specific anticoagulants by intravenous or oral administration.

In addition, another important aspect is to protect patients from thromboembolic complications in the early postoperative period. Arterial hypertension, which is common in patients with coronary artery disease, increases the risk of early postoperative cardiovascular complications by 35% [6].

Obesity observed in patients also causes cardiovascular problems in the postoperative period [7]. The body has an index of 5 kg/m² for orthopedic exercises, which has an average temperature of 1.5 bar [8]. If thrombosis of the deep veins of the legs is not prevented, especially after hip and knee arthroplasty, the probability of thrombosis in these veins increases by 40-80% [9,10]. Esli vy wife, chtoby umy byli takimi je, kak i vy, vy doljny znat, chty vy wife, chtoby oni byli umnymi. However, these complications can be reduced by up to 80% if preventive measures are carried out based on individual mechanisms for each patient and take into account the factor [11,12,13].

Research methods

Total hip replacement is also a very traumatic procedure, as it is often associated with significant blood loss. Surgery for posterior venous thrombosis and arterial thromboembolism (PVT) in English [110; 101-106-p, 109; 1018-1025-p, 46; 455-461-p].

Based on the above, anesthesia completely blocks nociceptive impulses, post-operative blood loss and donor blood and blood components budet maximally effective, post-operative staryx tromboembolikov, a takje operatsii po keiningu, kotorye nam nujny, chtoby izbavitsya ot syndromov extimolini, kotorye mogut privesti k nature, kotoraya mojet pomoch. [11; 210-212-b]. Marking segmentalnoy blockade methods maximally meet all these requirements [61; 810-814-b, 136; 193-199-b].

Among the methods of anesthesia used in endoprosthesis of leg joints, there are more local anesthetic variants (SA, EA, joint SEA, transfer) [10; p. 16-21, 154; pp. 360-364, 108; 774-781-b], and the method of general anesthesia is used relatively little [6; p. 85-90, 157; 5-14.

Purpose of the study

In the field of traumatology and orthopedics, prevention of thromboembolic complications among military personnel in the early period after hip and knee arthroplasty (PMG) after molecular heparinioxidiparina natriy 6000 Ed and oral anticoagulant Rivoroxaban 10 mg. algorithm for patients create

Research material vessels

Our research was conducted in 103 military personnel in a randomized retrospective manner from 2021 to 2025. Among the military servicemen, mostly 45-55 years old, patients who underwent arthroplasty of the hip, hip and knee joints, and at the same time began anticoagulation therapy. All patients received an anticoagulant (enoxiparin sodium 6000 ed) 18 years ago and on the first day after the operation for the purpose of prevention of deep vein thromboembolism. Apart from that, there is a poor person who has medication, noveyshie profilikatcheskie mery, kak rule, v vide elastichnogo elastichnogo materiala, kotoryi mojet byt ispolzovan v kachestve elastichnogo materiala, chty privodit k uvelicheniyu kolichestva keyingov i verticalizatsii. As most health care providers note, he suffers from additional diseases, namely: arterial hypertension, type II diabetes, myocardial infarction, chronic heart failure, gastrointestinal problems, widespread atherosclerosis in the veins, and other types of diseases.

In our scientific study, we deeply analyzed the effectiveness of the drugs used by each military serviceman during hip-thigh and knee arthroplasty, including anticoagulant structures and doses, in the prevention of thromboembolic complications. Statistical analysis of the number

of anthropometric examinations (TVI) between groups in the case of thromboembolic diseases in accordance with the Mann-Whitney U-criteria was used.

Demographic characteristics of patients (n = 133).

Indicators				Value
Age / year				50 ± 4.7
gender				90 / 13
TVI (kg/m ²)				27.5 ± 1.4
Indeksy comorbidnosti Charlsona	Up to 3			23 (21 %)
	Up to 4			40 (40 %)
	≥ 5			43 (44 %)

Table-1. Patients undergoing surgery and the process of lecheniya enoksiparinom privodit k hemostasis hemostasis.

Indicators	From the operation old	From the operation After 12 hours	P
Fibrinogen, g/l	4.09 ± 0.5	5.27 ± 0.18	>0.05
Platelets, 10 ⁹ /l	213.7 ± 2.8	173,8 ± 3,2	<0.05
Prothrombin time, sec	11,9 ± 1,5	17,8 ± 1,5	>0.05
Partially activated thromboplastin time (AChTV), sec	21,7 ± 0,7	33,7 ± 1,3	>0.05
Bleeding time, min	4.11 ± 0.05	5.26 ± 0.04	> 0.05

Blood coagulation parameters in patients of group Y are the activation of the blood coagulation system before and after the procedure we can see. Although fibrinogen is within the normal range, Obedinenie indicators Ya obshchayus s vami s pomoshchyu ustanovki hemostazirovaniya koaguliatsionnykh komponentov, kotorye mogut byt adaleny iz organism. This is because the initial values are 21,7 and 17,8 from the minimum value of the norm. % low prothrombin time and activated partial thromboplastin time (QFTV) confirmed the parameters and showed that blood coagulation factors change in hypocoagulation. These patients were treated with molecular mass (Enoxiparin sodium 6000 Ed) subcutaneously.

Table-2. Algorithm for selecting and correcting the dose of rivaroxaban depending on sensitivity to the drug.

When rivaroxaban was started	MNO (8-12 layers)	Rivaroxaban dose (16-20 hours)	MNO (8-12 layers)	Rivaroxaban dose (16-20 hours)	MNO (8-12 layers)	Rivaroxaban dose (16-20 hours)

First dose		5.0 mg		5.0 mg		5.0 mg
Day 1	Not specified	5.0 mg	Not specified		Not specified	5.0 mg
	Hypersensitivity to Rivaroxaban		Common sensitivity to Rivaroxaban		Hypersensitivity to Rivaroxaban	
Day 2	2.0-2.5 →	2.5 mg	1.5-2.0 →	5.0-7.5 →	< 1.5 →	7.5 mg
	> 2.5 mg	Discontinue the 1st day dose and continue 2.5 mg →				
3-4 days	2.0-3.0 →	1.25-2.5 mg →	1.5-2.0 mg →	7.5-10 mg →	< 1.5 →	10 mg
	3.0 →	Discontinue the 1st day dose and continue 1.25 mg →	2.0-3.0 →	5.0-7.5 mg →	1.5-2.0 →	7.5 mg
Day 5	2.0-3.0 →	Save the dose.	1.5-2.0 →	10 mg	< 1.5 →	12.5-15 mg →
	> 3.0 →	Discontinue the 1st day dose and continue 1.25 mg →	2.3-3.0 →	Save the dose.	1.5-2.0 →	10-12.5 mg →
			3.0-4.0 →	Reduce the dose by 30%	2.0-2.5 →	Save the dose.

The table shows that for beginners, the sensitivity to Rivaroxaban and its effect can be observed from the 2nd day, especially the INR indicators, which are clearly visible in the coagulogram analysis, are on average in the range of 1.5-2.0. By the fifth day, this is a drug that supplements mental abilities to provide health correction. In the study, patients were given 10 mg of Rivaroxaban in tablet form, mainly after the evening meal (table-2). Supplements in sensitivity in laboratory analyses of the coagulogram INR and not only in the hospital (2.0-2.5) and blood rheology improvement, and of course, in order to prevent thromboembolic complications, separate analyses were taken for each military serviceman. Rivaroxaban dopolnitelno soderjit molekular anticoagulant Enoxiparin sodium 4000-6000 Ed t/o reception was corrected in the background.

Discussion

According to the results of the analysis of the data obtained, in our experience, we can see that the prevention of early thromboembolic complications after surgical interventions on the hip

and knee joints with Rivaroxaban 10 mg in combination with cilantro in patients with direct molecular heparin (Enoxiparin sodium 6000 IU) showed sufficient effectiveness in terms of clinical safety in thromboprophylaxis. In the main group, no serious hemorrhagic complications were observed in the early postoperative period. It should also be noted that subcutaneous administration of (Enoxiparin sodium 6000 IU) proved its clinical safety, although the differences in the control group were not statistically significant, and its advantages over its analogues were demonstrated. In the control group of the study, in the early postoperative period, 2 out of 60 patients developed a non-floating thrombus in the deep veins of the legs. If thromboembolism is complicated, it does not pose a threat. The vascular surgeon was examined and the observer received treatment. In the main group, thromboembolic and hemorrhagic complications were not observed after the operation.

Conclusions.

1. Despite current standards, there remains controversy regarding approaches and methods for preventing deep venous embolism of the lower extremities after surgical procedures on the lower extremities and their effectiveness.
2. From traumatology and orthopedic surgery practices, the progradational molecular heparin (enoxiparin) as an anticoagulant, the ease of use, the anti-inflammatory effectiveness, hemorrhagic complications, and the prevention of thromboembolism are of great importance.
3. The overall conclusion from the study is that the combination of the oral anticoagulant Rivaroxaban 10 mg with low molecular weight heparin (enoxiparin) in patients undergoing surgery is clinically effective and safe in preventing thromboembolic complications after surgery.

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