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VENOUS THROMBOEMBOLISM PROPHYLAXIS: A EUROPEAN PERSPECTIVE

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ПРОФИЛАКТИКА ВЕНОЗНОГО ТРОМБОЭМБОЛИЗМА: ЕВРОПЕЙСКАЯ ПЕРСПЕКТИВА

Актуальность. Венозный тромбоэмболизм — важная проблема общественного здравоохранения. Он остается одной из главных причин смертности. Кроме того, лечение антикоагулянтами хотя и эффективно, при этом может быть потенциальным источником ятрогенных осложнений.

Результаты. Освещаются основные вопросы профилактики венозного тромбоэмболизма. Все современные рекомендации по его профилактике, применяющиеся во всем мире, являются рекомендациями Американской коллегии пульмонологов. Европейская ассоциация анестезиологов создала целевую группу в составе семи специалистов ассоциации по этой проблеме и некоторых представителей крупных европейских обществ по ортопедии, общей хирургии, гинекологии и акушерству, медицинской помощи и интенсивной терапии, гемостазу и тромбозу. Этот орган из 14 человек определит различные вопросы, которые будут рассмотрены большой консультативной группой по подготовке проектов руководств по профилактике венозного тромбоэмболизма. Планируется разработка рекомендаций по периоперационной (пре-, интра- и пост-) профилактике венозного тромбоэмболизма, в том числе в отделении интенсивной терапии. В результате будут разработаны основные принципы профилактики венозного тромбоэмболизма, тромбоэмболии легочной артерии у больных хирургического профиля и в отделении интенсивной терапии.

Ключевые слова: венозный тромбоэмболизм, тромбоэмболия легочной артерии, антикоагулянты.

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Actuality. Venous thromboembolism (VTE) is a major public health issue. It remains one of the main causes of mortality. In addition, anticoagulant treatment, although effective, may be a potential source of iatrogenic complications.

Results. The article highlights the major issues preventing venous thromboembolism. Currently, everything about VTE guidelines refers to the excellent ACCP (American College of Chest Physicians) recommendations which are considered to be THE reference worldwide. The ESA has built a task-force including seven ESA specialists in this topic, and some representatives from major European societies on orthopedics, general surgery, gynecology and obstetrics, medical intensive care and hemostasis and thrombosis. This body of 14 people + the chair will define the

different questions to be addressed to the large advisory group in charge of drafting the guidelines.

The recommendations will deal with perioperative (pre-, per- and post-) VTE prophylaxis, including the intensive care unit. The GRADE method will be used for the grading. At the end of the process, it is expected that the different participating bodies will endorse the guidelines, which wil be published in different European journals and especially in the European Journal of Anaesthesiology.

Key words: venous thromboembolism, pulmonary embolism, anticoagulants.

Venous thromboembolism (VTE) is a major public health issue. It remains one of the main causes of mortality. It also has considerable morbidity as non-fatal pulmonary embolism and deep vein thrombosis (DVT) induce short- and long-term complications [1–3]. In addition, anticoagulant treatment, although effective, may be a potential source of iatrogenic complications.

Nevertheless, the benefit-risk ratio of widespread postoperative prophylaxis is highly positive, at least in patients at moderate or high risk of DVT. Furthermore, the global VTE rate has been continuously decreasing since the early 70's, thanks to prophylaxis, to the development of day surgery, to fast track procedures and related improvements in the rehabilitation processes, and to major progresses in the surgical and anesthetic techniques. By now, less than 1.5% of patients undergoing major orthopedic surgery will develop a symptomatic VTE event. The post-operative pulmonary embolism (PE) rate is far below 0.5% and the fatal PE rate is much lower than 0.1% in this setting [2].

However, if for a consultant in anesthesiology, the likelihood to observe a fatal PE episode in a hip fracture patient is now very low, things are quite different in other surgical settings such as, for instance, thoracic or bariatric surgery. In addition, more and more elderly patients with severe risk factors are undergoing major surgical procedures, and this very specific population hasn't really been included in the large and recent VTE trials until now... Therefore, many questions are still raised.

Remaining Issues

— Intermittent pneumatic compression (IPC) devices are more effective than graduated elastic stockings, which may be not effective at all [4; 5]! However, the effectiveness of mechanical prophylaxis on pulmonary embolism and mortality has not been strongly ascertained.

— Renal function needs to be evaluated when low molecular weight heparins, fondaparinux, dabigatran, apixaban or rivaroxaban are to be prescribed. An age of over 75 years and low body weight (<50 kg) has to be taken into account.

— There is a definite risk of spinal or epidural hematoma in patients receiving anticoagulants. Caution should be exercised especially when administering the newer agents. Follow guidelines, and specifically the European Society of Anaesthesiology (ESA) 2010 guidelines [6].

— Patients undergoing surgery that involves a moderate or high overall risk should receive prophylaxis until full mobilization. Patients who have undergone a total hip or knee replacement, surgery for a hip frac-ture, or major abdominal surgery (urologic, gynecologic, digestive) should receive prophylaxis for about 5 weeks longer [7; 8].

— Evidence-based data are needed for bariatric surgery, surgery in the severe obese patient [9], thoracic surgery and intensive care patients [10].

— The relevance of distal vein thrombi is debated. Surrogate venographic end-points are now substitute by a combination of ultrasound and clinical criteria [11]. Yet, no one knows if asymptomatic distal thrombi have to be treated.

— The new antithrombotic agents (non Vitamin K oral anticoagulants; NOACs) are now used and well accepted in major orthopedic surgery (Total Hip and Total Knee Replacement patients) [12]. However, in no other surgical setting have they been approved yet, even if some studies are about to start in cancer patients and immobilized patients. In addition, there are very few long-term data for these products for which — it should be remembered — no antagonists are available.

Our European Project

Currently, everything about VTE guidelines refers to the excellent ACCP (American College of Chest Physicians) recommendations[1; 3; 7; 13] which are considered to be THE reference worldwide. For the first time, the upcoming ESA Guidelines on perioperative venous thromboembolism (VTE) prophylaxis aim to promote an independent European prospective.

The ESA has built a task-force including seven ESA specialists in this topic, and some representatives from major European societies on orthopedics, general surgery, gynecology and obstetrics, medical intensive care and hemostasis and thrombosis. This body of 14 people + the chair will define the different questions to be addressed to the large advisory group in charge of drafting the guidelines.

The recommendations will deal with perioperative (pre-, per- and post-) VTE prophylaxis, including the intensive care unit. The GRADE method will be used for the grading.

At the end of the process, it is expected that the different participating bodies will endorse the guidelines, which wil be published in different European journals and especially in the European Journal of Anaesthesiology (2015 Impact Factor : 2.98).

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ВОЗМОЖНОСТИ УЛЬТРАЗВУКОВОГО МОНИТОРИНГА У НОВОРОЖДЕННЫХ ДЕТЕЙ В КРИТИЧЕСКОМ СОСТОЯНИИ

Цель. Оценить эффективность неинвазивного ультразвукового мониторинга гемодинамических расстройств у новорожденных в критическом состоянии.

Материалы и методы. У новорожденных в критическом состоянии (30 ИВЛ-зависимых последовательных пациентов, возраст (19,5±2,1) ч, с массой тела 1300–2650 г) оценивалась эффективность мониторинга гемодинамики ультразвуковым методом. Две группы — с исходной кардиотонической поддержкой и без нее. Исследовали анатомические показатели сердца, сократительную способность миокарда, показатели центральной гемодинамики и регионального кровотока (передняя мозговая, верхнебрыжеечная и почечные артерии).