Disszertáció címe: The study of the causes of thromboembolic complications and the potential methods of prophylaxis in patients undergoing hip and knee replacement surgery

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The application of thromboprophylaxis is required at hip and knee endoprothetic replacement surgery.

- 1. Until 1995 only unfractioned heparin (UFH) served as prophylaxis. We found joint-dosage heparin prophylaxis more efficient and safer than small-dose heparin rationing. Hemorrhagic complications and seldomly HIT and HITT can develop by using UFH. In cases where the patient's prophylaxis has been converted to Syncumar postoperatively, the INR value has to be kept around 2 in order to prevent bleeding beside the thromboembolic protection.
- 2. We reached remarkable results to prevent thromboembolic complications by using LMWH prophylaxis in animal models, though the planned laboratory examinations to detect developing deep vein thrombosis or pulmonary embolism were not successful.
- 3. We managed to decrease the number of thromboembolic complications by using a 10-day long LMWH prophylaxis, but new complications developed due to the re-increased hemostasis around postoperative day 25-28. Therefore we introduced the prolonged 35±7 day long prophylaxis for the first time in Hungary. Although the risk-period is shorter for patients with knee operation we consider that it is safer to have prolonged prophylaxis in this group as well.
- 4. We concluded that the non-invasive easily implementable CD-UH examinations have high significance to detect thrombi, which partially fill in veins but do not show any clinical symptoms. By the introduction of antithrombotic prophylaxis it can be prevented that these thrombi could lead to deep vein thrombotic occlusion and consequent pulmonary embolism.
- 5. Usually, thrombophylia is the leading cause of complications, which appear beside modern thromboembolic prophylaxis. Screening examinations for thrombophylia is necessary only if the patient has a history of thromboembolic episodes, meaning that those appear cumulatively in the patient's family or when one's thrombosis risk score is 15 or higher. In case of thrombophylia the prophylaxis should be designed individually.

Key-words: tromboembóliás profilaxis- thromboembolic prophylaxis trombofília- thrombophilia