Medical Xpress

Are blood thinners post-op killers?

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Current US guidelines for the prescription of potent anticoagulants by surgeons who perform joint replacement operations could be doing patients more harm than good, according to Dr. Nigel Sharrock and his team from the Hospital for Special Surgery in New York. They argue for a revision of the American College of Chest Physicians' guidelines, in light of their review showing that the use of powerful anticoagulants to prevent pulmonary embolism may actually lead to more deaths among patients who take these drugs. The paper was published in the March issue of Springer's journal *Clinical Orthopaedics and Related Research*.

Anticoagulants are routinely prescribed before and after total hip and knee replacement operations to reduce the risk of thrombosis, and death from pulmonary embolism in particular, as recommended by the Chest Physicians Consensus Statement.

During the last decades, deaths from pulmonary embolism have fallen significantly due to a combination of advancements in anesthesia, better surgical techniques and care pre- and post-surgery, as well as a better understanding of how thrombosis develops as a result of surgery. In light of these developments, Sharrock and his team looked at whether the prescription of potent anticoagulants by surgeons who perform joint replacement operations is still warranted, as these drugs also have side effects.

The authors reviewed 20 studies among a total of just over 28,000 patients undergoing joint replacement surgery who were prescribed medication to reduce the risk of thrombosis. They compared the total

number of deaths and cases of non-fatal pulmonary embolism between three frequently used prevention protocols worldwide. Patients in group A received potent anticoagulants such as low molecular weight heparin; those in group B received local spinal or epidural anesthesia, pneumatic compression and aspirin; patients in group C were prescribed slow-acting oral anticoagulants such as warfarin.

The lowest number of deaths occurred in patients in group B. Patients in groups A and C were more than twice as likely to have died as those in group B. There was no difference in the number of deaths between groups A and C. Patients in group A were also at 60-70% greater risk of non-fatal pulmonary embolism than those in group B, indicating that pulmonary embolism occurs despite the use of powerful anticoagulants.

Sharrock and colleagues conclude that “the American College of Chest Physicians should reconsider their guidelines to reflect the fact that pulmonary embolism occurs despite the use of potent anticoagulants and may, in fact, expose patients to increased mortality after surgery.” In their view, the current recommendations often result in physicians feeling compelled to prescribe these anticoagulants to avoid potential litigation when, in reality, these drugs could be doing more harm than good.

Source: Springer