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Opinion Open Access

NOACs; Friend or Foe?

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Opinion

New oral anticoagulants (NOAC's) are becoming more popular as antithrombotic agents for the prevention of venous thromboembolism in atrial fibrillation and as prophylaxis in hip and knee surgery. With simple administration, rapid onset, few drug interactions and the absence of coagulation monitoring, NOAC's appear as a friend in the prevention of thromboembolic events. Undoubtedly patients would prefer treatment with a simple pill over injections and intensive monitoring implied that the treatment is efficient and without adverse effects.

Yet, few potent pharmacological agents are capable of doing anything good without causing harm. We, as orthopedic surgeons, are frequently faced with the harm caused by the irreversible NOAC treatment. Since there is no antidote to NOAC's, elimination (renal or with hemodialysis) is the only way to stop the NOAC's from interfering with coagulation. Thus the treatment with NOAC's has a fatal potential in patients at risk of falling experiencing a proximal femoral fracture [1]. The nature of a proximal femoral fracture implies that the patient is unable to move, until someone helps. The elderly living alone, falling and suffering a proximal femoral fracture are sometimes lying on the floor until discovered. This often causes dehydration, hypothermia and eventually decreases renal perfusion. Thereby the elimination of NOAC is reduced and the bleeding from the fracture increases adding to a vicious cycle. Evidence shows that fast surgery (within 48 hours) for patients suffering a hip fracture reduce mortality [2]. Yet, NOAC treatment makes fast surgery impossible due to uncontrollable bleeding [1]. Surgery is occasionally delayed up to 4 days if the patient is suffering from decreased renal function and the expected perioperative bleeding is high. This delay has the potential of causing pressure-sores, pneumonia and myocardial infarction. Thus NOAC may be a foe in the elderly, especially if there is a considerable risk of falling as long as there is no antidote available. We, as orthopedic surgeons, would highly prefer the immediate reversible vitamin-K antagonist treatment as thrombo-prophylaxis in the elderly if at all possible. One could recommend that the patients should be thoroughly informed that NOAC treatment halts acute surgery, with potential devastating outcome [1]. The question at hand would then be which treatment the patients would prefer, the cheap reversible vitamin-K antagonist, or the NOAC; friend or foe?

References

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