Venous thromboembolism prophylaxis following hip arthroplasty

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COMMENT ON

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We read this paper with interest. The merits of using oral agents for anticoagulation to improve patient compliance are clear but we question whether such efforts to enforce chemical prophylaxis are justified.

Establishing the efficacy of anticoagulation is notoriously difficult. Clinically useful figures for symptomatic and fatal pulmonary embolus (PE) require large numbers to gain sufficient statistical power. The endpoint of deep venous thrombosis incidence is often substituted but does not produce equivalent morbidity and mortality.¹ Indeed, the incidence of 0.4% for fatal PE quoted in this paper appears without basis in the references and may be challenged by larger and more recent studies where rates of 0.07% and 0% were found using aspirin and mechanical prophylaxis as preventative agents.^{2,5}

Using data from the National Joint Registry, Jameson

et al endeavoured to overcome this with an observational study of over 200,000 patients.⁴ They compared incidence of venous thromboembolic complications both before and after implementation of guidelines on thromboprophylaxis from the National Institute for Health and Clinical Excellence. The use of low molecular weight heparin produced no significant reduction in the mortality from fatal PE for knee arthroplasty and caused a slight increase in fatal PE following hip arthroplasty with the additional increases in thrombocytopenia.

The American Academy of Orthopaedic Surgeons has also failed to identify good evidence to recommend chemoprophylaxis in these patients, with mechanical prophylaxis and aspirin outperforming other methods.¹

From these data it appears that chemoprophylaxis may have a very limited role in the prevention of thromboembolic complications in lower limb arthroplasty, as well as a considerable side effect profile. We must ask whether we can justify prescribing extended courses of such medications with this existing evidence base.

References

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