

Correspondence

Thromboprophylaxis

To the Editor:

In a recent issue of this journal, Lassen and coworkers (1991) compared low molecular weight heparin and placebo in hip arthroplasties. The planning of the study, performed in 1988, warrants a comment.

It is well documented that the incidence of deep venous thrombosis in hip and knee surgery varies from 45 to 70 percent if no prophylaxis is used, with fatal pulmonary embolism in 2–3 percent of the patients. In a Guest Editorial in this journal, Bergqvist and coauthors (1984) recommended either dextran or heparin/dihydroergotamine "in patients over 40–50 years of age undergoing surgery of the trunk or lower extremities of at least 1 hour's duration."

Hull et al. (1986) suggested three alternative prophylactic approaches in hip and knee surgery: warfarin, adjusted-dose heparin, and intermittent pneumatic compression combined with dextran. Although they did not find any of these ideal, they found that these agents "improve health care by comparison with no prophylaxis."

When several effective and safe methods are available and the need for prophylaxis has been generally advocated, every new therapeutic modality should be compared with some of these methods and no patient should be left without any protection. With this background, it is difficult to find a justification for a placebo-controlled study (Alho et al. 1984). Should

To the Editor:

We totally agree with Professor Antti Alho that effective prophylaxis must be used in patients undergoing total hip replacement. Other demands on a prophylactic regimen to be used are that it is simple to apply, that it does not need monitoring, and that it can be used in all the patients. When we planned our study, graded compression stockings were accepted and used routinely at orthopedic departments in Denmark. We therefore used this basic prophylaxis in all of our patients and investigated the additive effect of a low molecular weight heparin blindly. Thus, no

not a clinical study be potentially beneficial for all participating patients? Also, the questions concerning the relative efficacy of heparin compared with the other documented agents remain unanswered.

References

- Alho A, Stangeland L, Røttingen J, Wiig J N. Prophylaxis of venous thromboembolism by aspirin, warfarin and heparin in patients with hip fracture. A prospective clinical study with cost-benefit analysis. *Ann Chir Gynaecol* 1984; 73: 225–8.
- Bergqvist D, Bergentz S E, Fredin H. Thromboembolism in orthopaedic surgery. *Acta Orthop Scand* 1984; 55 (3): 247–50.
- Hull R D, Raskob G E. Prophylaxis of venous thromboembolic disease following hip and knee surgery. *J Bone Joint Surg (Am)* 1986; 68 (1): 146–50.
- Lassen M R, Borris L C, Christiansen H M, Boll K L, Eiskjær S P, Nielsen B W, Schøtt P, Olsen A D, Rodenberg J C, Lucht U. Prevention of thromboembolism in 190 hip arthroplasties. *Acta Orthop Scand* 1991; 62: 33–8.

Antti Alho

*Department of Orthopedics, Ullevål Hospital,
N-0407 Oslo 4, Norway*

patient was left without protection. Further, all of our patients were screened with bilateral phlebography and were treated with orally administered anticoagulants if there was a verified deep venous thrombosis, as described in our paper.

Michael Rud Lassen, Lars C. Borris and Ulf Lucht

*Departments of Orthopedics, Aalborg Hospital,
DK-9000 Aalborg, and Århus Municipal Hospital,
DK-8000 Århus, Denmark*