

Deep Vein Thrombosis after Total Knee Replacement

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Abstract

Introduction: The prevalence of deep vein thrombosis after total knee replacement has been quoted to be between 46% and 84% in the Western literature. The aims of this study were to determine its prevalence in the Singapore population and to assess the need for prophylaxis against deep vein thrombosis. **Materials and Methods:** We examined data on 100 consecutive patients undergoing total knee replacement at the Adult Reconstructive Service, Department of Orthopaedic Surgery, Singapore General Hospital and assessed the possible risk factors: age, sex, weight, previous surgery, unilateral or bilateral surgery, postoperative rehabilitation, tourniquet and operating time. Functional and knee scores based on the Knee Society Clinical Rating System were also assessed. No prophylaxis was given to these patients. These patients underwent a duplex scan of both lower limbs on the seventh postoperative day. Treatment was instituted only if proximal deep vein thrombosis was detected. **Results:** The overall incidence of deep vein thrombosis was 14% with 64.3% of it occurring distally. Deep vein thrombosis was more common in bilateral total knee replacement (22.2%) compared to unilateral total knee replacement (13.2%). Partial thrombosis was present in 71.4% and occurred predominantly in the ipsilateral leg. There was no evidence of propagation. Only 1 patient developed pulmonary embolism and was treated successfully but there was no evidence of deep vein thrombosis on duplex scan in this patient. **Conclusion:** There was no significant difference in the risk factors between patients who did and those who did not develop deep vein thrombosis.

Ann Acad Med Singapore 2000; 29:428-33

Key words: Duplex scan, Prophylaxis, Pulmonary embolism, Risk factors, Singapore

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