

# Use of Low Molecular Weight Heparin for Prevention of Deep Vein Thrombosis in Total Knee Arthroplasty—A Study of its Efficacy in an Asian Population

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## Abstract

**Introduction:** The aims of this paper were to study the incidence of deep vein thrombosis following total knee replacement in an Asian population and to evaluate the role of low molecular weight heparin for deep vein thrombosis in this setting. **Materials and Methods:** We prospectively studied two groups of 100 consecutive patients undergoing total knee replacement separately. Group 1 did not receive any low molecular weight heparin and group 2 received low molecular heparin, nodraparin calcium (Fraxiparine™) according to body weight. The sex distribution, age group, weight, preoperative knee and function scores, and postoperative rehabilitation were similar for both groups. A single ultrasound technician performed ultrasound duplex scan of both lower limbs on the seventh postoperative day. **Results:** The incidence of deep vein thrombosis in group 1 was 14% (14 patients, 5 proximal vein thromboses and 9 distal vein thromboses) while in group 2, no patients developed deep vein thrombosis. There was no increased incidence, either local or systemic, of major bleeding complications with the use of low molecular weight heparin. **Conclusion:** While the incidence of deep vein thrombosis following total knee replacement in an Asian population appears lower compared to Western populations, the use of low molecular weight heparin for thromboprophylaxis appears to further reduce the incidence without major bleeding complications.

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**Key words:** Asian population, Bleeding, Deep vein thrombosis, Prophylaxis, Ultrasound duplex scan

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