Risk stratification and heparin prophylaxis to prevent venous thromboembolism in pregnant women.

Women with a history of venous thromboembolism (VTE), thrombophilia or both may be at increased risk of thrombosis during pregnancy, but the optimal management strategy is not well defined in clinical guidelines because of limited trial data. A strategy of risk assessment and heparin prophylaxis was evaluated in pregnant women at increased risk of VTE. In a prospective trial (Efficacy of Thromboprophylaxis as an Intervention during Gravidity [EThIG]), 810 pregnant women were assigned to one of three management strategies according to pre-defined risk factors related to history of VTE and thrombophilic profile. Low-risk women (group I), received 50-100 IU dalteparin/kg body weight/day for 14 days postpartum, or earlier when additional risk factors occurred. Women at high (group II) or very high risk (group III) received dalteparin from enrollment until six weeks postpartum (50-100 IU and 100-200 IU/kg/day, respectively). Objectively confirmed, symptomatic VTE occurred in 5/810 women (0.6%; 95% confidence interval [CI], 0.2 to 1.5%) (group I, 0 of 225; II, 3/469; III, 2/116). The rate of serious bleeding was 3.0% (95% CI, 1.9 to 4.4%); 1.1% (95% CI, 0.5 to 2.2%) was possibly dalteparin-related. There was no evidence of heparin-induced thrombocytopenia, one case of
osteooporosis, and rates of miscarriage and stillbirth were similar to previous, retrospective studies. Risk-stratified heparin prophylaxis was associated with a low incidence of symptomatic VTE and few clinically important adverse events. Antepartum heparin prophylaxis is, therefore, warranted in pregnant women with idiopathic thrombosis or symptomatic thrombophilia.