

## Clinical Shorts

### Three or six?

Traditionally, patients with deep vein thrombosis (DVT) or pulmonary embolism (PE) are treated with oral anti-coagulants for at least 6 months following initial treatment with heparin. However, the optimum duration for anticoagulation has not been determined. This UK study looked at more than 700 patients to assess whether it was advantageous to use anticoagulants for patients with DVT or PE for 6 months rather than 3 months.

Adult patients with either DVT or PE (or both) were randomized into 1 of 2 groups to receive either 3 (n=369) or 6 months (n=380) of anticoagulation with warfarin following heparin treatment for 5 days. The target international normalized ratio (INR) was 2.0 to 3.5. Patients with risk factors for recurrence (eg, prolonged or continuous immobility, predisposing hematologic disorders, pregnancy, recurrent DVT or PE, neoplasia) or those requiring thrombolysis or embolectomy were excluded from the trial. Patients were monitored for up to 12 months.

The researchers found that fatal and non-fatal DVT or PE occurred during or after treatment for 31 (8%) patients in the 3-month group, compared with 29 (8%) patients treated for 6 months ( $P=.80$ ; 95% confidence interval, -3.1 to 4.7). Two people in the 3-month group died from DVT or PE during treatment, and 3 people in the 6-month group died. Failed resolution, extension, or recurrence affected 6 patients in the 3-month group, compared with 10 in the 6-month group.

After treatment, 23 non-fatal recurrences occurred in those treated for 3 months, compared with 16 in those treated for 6 months. There were no fatal hemorrhages during treatment, but there were 8 major hemorrhages in the 6-month group and none in the 3-month group. Control was similar in both groups.

#### Bottom line

- There seems to be little or no advantage to increasing the duration of anticoagulation from 3 to 6 months in those with DVT or PE, and no risk factors for recurrence are known. There is an increased risk of hemorrhage associated with the longer duration of treatment with warfarin.

**Source:** Campbell IA, Bentley DP, Prescott RJ, Routledge PA, Shetty HG, Williamson IJ. Anticoagulation for three versus six months in patients with deep vein thrombosis or pulmonary embolism, or both: randomised trial. *BMJ* 2007;0(2007):bmj.39098.583356.55v1(8 February).

### Guaranteed Delivery

The rates of elective primary cesarian deliveries with no clear medical or obstetric indications are rising in many countries, as the risks are believed to be very low. However, few studies have been large enough to identify differences in the rates of severe morbidity associated with low-risk, elective cesarian delivery and planned vaginal delivery among healthy women at term.

Researchers carried out a retrospective population-based cohort study of 2.3 million women in Canada who delivered between 1991 and 2005. Healthy women who had a primary cesarian delivery for breech presentation were considered the "planned cesarian" group and were compared with a similar group who planned to deliver vaginally.

Overall rates of severe morbidity were 27.3 per 1000 deliveries in the planned group for planned cesarian, compared with 9.0 in the group for planned vaginal delivery. The absolute risk increases were low, yet the planned cesarian group had increased postpartum risks of cardiac arrest, wound hematoma, hysterectomy, major infection, anesthetic complications, venous thromboembolism, and hemorrhage requiring hysterectomy. Adjusted odds ratios ranged from 2.1-5.1.

The group for planned cesarian had a longer hospital stay (additional 1.47 days) and a lower risk of hemorrhage requiring blood transfusion. There was no significant difference in the rate of in-hospital maternal death between the 2 groups.

Among the women in the group for planned vaginal delivery, 8.2% had an emergency cesarian section and 13.9% had an instrumental vaginal delivery. Women having an emergency cesarian delivery were more likely to suffer death or serious morbidity than those with vaginal deliveries.

#### Bottom line

- Although the absolute difference is small, risks of severe maternal morbidity associated with planned cesarean delivery are higher than those with planned vaginal delivery.

**Source:** Liu S, Liston RM, Joseph KS, Heaman M, Sauve R, Kramer MS for the Maternal Health Study Group of the Canadian Perinatal Surveillance System. Maternal mortality and severe morbidity associated with low-risk planned cesarean delivery versus planned vaginal delivery at term. *CMAJ* 2007;176(4):455-60.