

Start dalteparin sodium in close proximity to surgery?

Commencing dalteparin sodium in close proximity to surgery significantly reduces the risk of deep vein thrombosis (DVT) in patients undergoing hip arthroplasty, compared with warfarin, say researchers from the North American Fragmin Trial. They explain that patients usually commence low molecular weight heparin prophylaxis 12 hours preoperatively or 12–24 hours postoperatively in Europe and North America, respectively.

In this study, 1501 patients who were scheduled to undergo hip arthroplasty were randomised to receive SC dalteparin sodium ['Fragmin'] initiated immediately prior to surgery (n = 496) or soon after surgery (487), or warfarin ['Coumadin'].*;†

Fewer patients develop DVTs

Among patients with interpretable venograms (performed a mean of 5.7 days after surgery), significantly fewer patients who commenced dalteparin sodium preoperatively or postoperatively, compared with warfarin recipients, experienced DVT (10.7 and 13.1 vs 24% of patients, respectively). Similarly, significantly fewer patients starting dalteparin sodium preoperatively or postoperatively, compared with warfarin-treated patients, experienced proximal DVT (0.8 and 0.8 vs 3% of patients, respectively).

Greater risk of bleeding

Between postoperative days 2 and 8, episodes of major bleeding occurred in a greater proportion of patients who commenced dalteparin sodium preoperatively or postoperatively, compared with warfarin recipients (2.2 and 0.8 vs 0.4%, respectively); the difference between preoperative dalteparin sodium and warfarin recipients was significant. In addition, a significantly higher proportion of patients who commenced dalteparin sodium preoperatively or postoperatively, compared with warfarin-treated patients, required blood transfusions during postoperative days 1–8 (42.7 and 37.6 vs 28.2%, respectively).

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† The dalteparin sodium regimens consisted of an initial SC 2500IU dose given within 2 hours prior to surgery and a second dose administered \geq 4 hours postsurgery, or postoperative dalteparin sodium only; all dalteparin sodium recipients subsequently received 5000IU once daily.

Hull RD, et al. Low-molecular-weight heparin prophylaxis using dalteparin in close proximity to surgery vs warfarin in hip arthroplasty patients: a double-blind, randomized comparison. *Archives of Internal Medicine* 160: 2199-2207, 24 Jul 2000 800839327