

Journal Watch article by Dr Vincent Thai

Title : The use of long-term low-molecular weight heparin for the treatment of venous thromboembolism in palliative care patients with advanced cancer : A case Series of 62 patients

Reference : SIR Noble et al, Palliative Medicine 2007;21:473-476

Journal club discussed at CCI on 11 Dec 2007

Abstract : A prospective case series of 62 patients on long term low molecular weight (LMWH) heparin (ie secondary prevention) with confirmed venous thromboembolism (VTE) and comparing the CLOT (full dose) versus the Montreal (reduced dose) regimes and the outcomes on symptomatic recurrence rates upon stopping of LMWH, major bleeding rates and minor bleeding rates as well as heparin thrombocytopenia and osteoporosis.

It was found that the median duration of follow up was 97 days. Main reason for discontinuation was because of death or commencement of care pathway. Only 11% (7) stopped after the 6 months of treatment. Recurrence rate of VTE was high in 43 % (3) of these 7 patients.

As for overall minor bleeding rate 8.1% and all the patients were in the CLOT regime, only 1.6 % was attributable to LMWH and none to steroids nor NSAIDs. The major bleeding rates was 0%. There was no evidence of patients developing heparin induced thrombocytopenia nor osteoporosis.

Strengths : This was a good attempt to look at complication rates of minor and major bleeding in a prospective fashion. The study also included patients at higher risk of bleeding such as 20 patients with liver metastases and 5 patients with brain metastases.

Weakness :

- 1) Still relatively small numbers, the comparison of the CLOT versus the Montreal regimes will be better addressed in a randomized study.
- 2) Without a baseline PT-INR of patients with liver metastases and brain metastases, the information on the safety of LMWH in these patients is less useful.
- 3) The small sample size and not being able to do postmortem studies of all deaths in this series makes this difficult to state that what percentage of patients died with VTE while on LMWH as dyspnea can be a rather common symptom towards the end.
- 4) Osteoporosis, though one of the outcomes measured, it did not explain if the patients went for bone mineral densitometry and is difficult to get patients to do so when they are declining.

- 5) Bigger numbers of patients with brain metastases and baseline PT-INR with liver metastases might be helpful to shed light on how safe the LMWH are with these patients.
- 6) Though the NSAID use rate was 35%, it was not clear if there were on gastric prophylaxis. Similarly, it was unclear how many patients were on steroids and for how long and whether they had gastric protection as well

Relevance to palliative Care

There are always concerns about the bleeding risk when patients are on multiple medications including NSAIDs and steroids and needing therapeutic doses of LMWH.

However, the bleeding rates are helpful in quantifying some of the bleeding risk in this study.