

Am J Med. 2011 Aug;124(8):756-65.

Long-term low-molecular-weight heparin and the post-thrombotic syndrome: a systematic review. Hull RD, Liang J, Townshend G.

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Abstract

OBJECTIVE: Post-thrombotic syndrome causes considerable morbidity. The Home-LITE study showed a lower incidence of post-thrombotic syndrome and venous ulcers after 3 months of treating deep vein thrombosis with the low-molecular-weight heparin tinzaparin versus oral anticoagulation. This systematic review examined whether long-term treatment of deep vein thrombosis using low-molecular-weight heparin, rather than oral anticoagulation, reduces development of post-thrombotic syndrome.

METHODS: We identified 9 articles comparing treatment of deep vein thrombosis using long-term low-molecular-weight heparin with any comparator, which reported outcomes relevant to the post-thrombotic syndrome assessed ≥ 3 months post-deep vein thrombosis. **RESULTS:** Pooled analysis of 2 studies yielded an 87% risk reduction with low-molecular-weight heparin in the incidence of venous ulcers at ≥ 3 months ($P = .019$). One study showed an overall odds ratio of 0.77 ($P = .001$) favoring low-molecular-weight heparin for the presence of 8 patient-reported post-thrombotic syndrome signs and symptoms. Pooled analysis of 5 studies showed a risk ratio for low-molecular-weight heparin versus oral anticoagulation of 0.66 ($P < .0001$) for complete recanalization of thrombosed veins.

CONCLUSION:

These results support the lower incidence of post-thrombotic syndrome and venous ulcers observed in Home-LITE. Long-term treatment with low-molecular-weight heparin rather than oral anticoagulation after a deep vein thrombosis may reduce or prevent development of signs and symptoms associated with post-thrombotic syndrome. Post-thrombotic syndrome and associated acute ulcers may develop more rapidly after deep vein thrombosis than previously recognized.

Comments:

We have noted that it is better to consider the Low molecular weight heparins for little longer than starting the oral anticoagulants early for many other reasons. Follow up with INR is very important to confirm that the patient is adequately anticoagulated. Our patient compliance with INR testing is not good and at the same time the lab values are variable sometimes due to the lab practices. Patients may not come back to the clinics for adjustment of the drug dose and they also fail to report to their family doctors in time. That means TTR values are not in the acceptable range in many patients during the first 2 months of DVT therapies. It is better to consider the LMWH therapies for 2 to 3 months to avoid these problems. Now there is also evidence to say that the PTS is less with LMWH therapy.