Dalteparin sodium: alternative to heparin in acute MI?

The low molecular weight heparin dalteparin sodium may be an alternative to heparin as an adjuvant to thrombolysis for acute myocardial infarction (MI), report researchers from Sweden.

In this prospective multicentre study, 101 patients with acute MI were randomised to receive SC dalteparin sodium ['Fragmin'] 100 U/kg (up to a maximum of 10 000U), or placebo, immediately before and 12 hours after thrombolytic therapy with streptokinase.*†

A greater number of dalteparin sodium, compared with placebo, recipients had TIMI grade 3 flow in the infarct-related arteries when coronary angiography was performed (68 *vs* 51% of patients, respectively; p = 0.1). Compared with placebo recipients, there were also greater rates of TIMI grade 3 flow in infarct-related arteries after 20–28 hours among dalteparin sodium recipients with signs of early reperfusion based on myoglobin relative increase (50 *vs* 85% of patients, respectively; p = 0.066) and slope increase (46 *vs* 74% of patients, respectively; p = 0.038), and based on vector-ECG (52 *vs* 73% of patients, respectively; p = 0.11).

Reinfarctions occurred in 8 dalteparin sodium and 2 placebo recipients. Of the 8 dalteparin sodium recipients who experienced reinfarctions, 5 had reinfarction 24–72 hours after the end of dalteparin sodium therapy. The researchers say that this suggests that a reactivation of the thrombotic process may have occurred, and they believe that future studies should investigate whether prolonged treatment with low molecular weight heparin can prevent late reocclusions and reactivation.

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† All patients also received oral aspirin 75 mg/day (with an oral bolus of 300mg if they were not previously taking aspirin).

Frostfeldt G, Ahlberg G, Gustafsson G, Helmius G, Lindahl B, et al. Low molecular weight heparin (dalteparin) as adjuvant treatment to thrombolysis in acute myocardial infarction – a pilot study: biochemical markers in acute coronary syndromes (BIOMACS II). Journal of the American College of Cardiology 33: 627-633, 1 Mar 1999

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