

BONE

Zoledronic acid: paracetamol effective against post-dose symptoms

Paracetamol taken for 3 days reduces post-dose symptoms related to zoledronic acid infusion, new research reveals.

Transient post-dose symptoms, including fever and myalgia, may occur following the initial once-yearly infusion of zoledronic acid. Such symptoms usually decrease with subsequent infusions and usually only last for a few days.

Elevations in inflammatory cytokines are a possible culprit of this acute phase response to zoledronic acid therapy, and some evidence suggests that statins might be able to prevent release of these cytokines. This knowledge led Silverman and colleagues to conduct a randomized, double-blind, placebo-controlled study to compare the statin fluvastatin with the painkiller paracetamol for the reduction of post-dose symptoms following zoledronic acid infusion.

The researchers randomly allocated 793 postmenopausal women with low

BMD who had not previously been administered bisphosphonates to receive paracetamol, immediate-release fluvastatin or placebo 45 min before a zoledronic acid infusion. Paracetamol was taken four times daily for 3 days, whereas only a single dose of fluvastatin was taken.

Paracetamol significantly reduced increases in body temperature and use of rescue medication (ibuprofen) compared with placebo. By contrast, fluvastatin did not have a significant effect on post-dose symptoms. The researchers, therefore, urge clinicians to suggest to their patients that they take paracetamol to ease post-dose symptoms related to zoledronic acid infusion.

Carol Wilson

Original article Silverman, S. L. *et al.* Effect of acetaminophen and fluvastatin on post-dose symptoms following infusion of zoledronic acid. *Osteoporos Int.* doi:10.1007/s00198-010-1448-2