

## INJURY PREVENTION

### **SSRI antidepressants taken for menopausal symptoms may boost bone fracture risk**

*Risk sustained over several years; shorter treatment length may be preferable*

The class of antidepressants known as SSRIs (selective serotonin reuptake inhibitors), taken to curb menopausal symptoms, may boost bone fracture risk, suggests research published online in the journal *Injury Prevention*.

The heightened risk seems to last for several years, the findings show, prompting the researchers to suggest that shorter treatment length may be preferable. Further studies are warranted to see if the same association is found at lower doses of these drugs, they say.

SSRIs have become the third most frequently prescribed class of drug in the US, and are often prescribed for disorders that are not ostensibly psychiatric in nature.

These include irritable bowel syndrome and the hot flushes and night sweats typically associated with the menopause, for which SSRIs are seen as an effective alternative to hormone replacement therapy (HRT).

Psychiatric disorders, such as depression, have been linked to increased fracture risk, and the researchers wanted to know if SSRIs might be associated with a heightened risk of bone fractures among middle-aged women prescribed them to curb menopausal symptoms.

They used the PharMetrics Claims Database, which contains detailed information on medical and drug treatment claims made by 61 million patients in more than 98 managed care plans in the US.

They focused on 137,031 women with no mental health issues and aged between 40 and 64, who started treatment with SSRIs between 1998 and 2010. The SSRIs included citalopram, hydrobromide, escitalopram oxalate, fluoxetine hydrochloride, fluvoxamine maleate, paroxetine hydrochloride and sertraline hydrochloride.

They were compared with more than 236,294 women of the same age, prescribed H2 antagonists or proton pump inhibitors (PPIs), typically used to treat indigestion, over the same timeframe.

Analysis of the data showed that fracture rates were significantly higher among the women treated with SSRIs.

The fracture rate was 76% higher among those prescribed SSRIs one year after starting treatment, 73% higher after 2 years, and 67% higher after 5 years than it was among those treated with indigestion drugs.

This is an observational study so no definitive conclusions can be drawn about cause and effect, but the researchers point to a previously published theory to explain the associations they found.

Antidepressants may alter bone turnover, shifting the balance in favour of bone thinning rather than bone strengthening activities, they suggest.

“SSRIs appear to increase fracture risk among middle aged women without psychiatric disorders, an effect sustained over time, suggesting that shorter duration of treatment may decrease [this],” they conclude.

They point out that the number of women prescribed SSRIs for menopausal symptoms is likely to increase in the wake of the US drug regulator’s green light for another SSRI for this treatment indication.

“Future efforts should examine whether this association pertains at lower doses,” they add.