heartwire

HEART FAILURE

Spironolactone may cut bone-fracture risk in men with heart failure

JULY 10, 2008 Steve Stiles

Download slides

Memphis, TN – Treatment with **spironolactone** in chronic heart failure may have the added benefit of preventing bone fractures, at least in men, suggests a retrospective analysis of patients from a single center [1]. Those who took the aldosterone inhibitor and diuretic in the case-control study showed a >40% drop in adjusted risk of incident fractures, especially if they were on the drug for at least six months.

"This is the first, to our knowledge, determination of the association between spironolactone and fractures," according to the authors, led by **Dr Laura D Carbone** (Veterans Affairs Medical Center and University of Tennessee Health Science Center, Memphis) in the July 8, 2008 issue of the *Journal of the American College of Cardiology*. Acknowledging the observational study's limitations, the group recommends further research into the findings, including randomized trials with bone-density and fracture-related end points.

They identified 167 cases of single-incident bone fractures not caused by trauma, excluding fractures of the skull, facial bones, or ribs, among all men with chronic heart failure seen at their Veterans Affairs center over six years. They were matched 1:4 to 668 patients without fractures from the same heart-failure cohort.

The adjusted odds ratios for total fractures and for "other" fractures (that is, fractures other than of the hip, wrist, or vertebrae) were significantly reduced among men who had taken spironolactone, compared with those who had not. The risks of hip, wrist, and vertebral fractures were unaffected. The spironolactone benefit appeared to be limited to the 156 patients who had been on the drug for longer than six months.

Effect of spironolactone use and duration of use on fracture risk in men with chronic heart failure, compared with nonuse of spironolactone

Parameter	OR* (95% CI)	p
Fracture risk by fracture location		
Any fracture	0.57 (0.35–0.95)	0.032
Fractures not of hip, wrist, or vertebrae	0.24 (0.08–0.73)	0.012
Risk of any fracture, by treatment duration		
≤6 mo	0.63 (0.28–1.45)	0.278
>6 mo	0.55 (0.31–0.98)	0.043

*Adjusted for smoking, body-mass index, prevalent fracture, and medications

To download table as a slide, click on slide logo above

"Even at the low doses of spironolactone used in our study (mean dose 25 mg/day), there was an inverse association with fractures," write Carbone et al. "This has important therapeutic implications because in clinical practice, low rather than high doses of spironolactone are more commonly prescribed."

« PREVIOUS HEARTWIRE ARTICLE
Heavy drinking ups stroke deaths in both sexes, quadruples CHD mortality in women

NEXT HEARTWIRE ARTICLE »
Better survival with CABG than stenting at six years in SoS, but anticipation builds for

Chinese herbal medicine shows promise in HF in early trial
JUN 4, 2013 15:30 EDT

Inside: Heart failure

More

What is PAH?

Evaluation and Risk Stratification in the HF World: Role for Imaging?

Source

1. Carbone LD, Cross JD, Raza SH, et al. Fracture risk in men with congestive heart failure; risk reduction with spironolactone. *J Am Coll Cardiol* 2008; 52:135–138. PUBMED

Related links

- **Beta blockers reduce risk of fractures**
  [*HeartWire* > *News*; Sep 14, 2004]
- **Thiazide diuretics associated with lower risk of hip fracture**
  [*HeartWire* > *News*; Sep 15, 2003]