Table 2: Evidence table –Leboff al. (2011)

Study type	Case control
Country	USA
Number of patients	N=208 (81 from Boston, 127 from Baltimore) N=51
	Leboff 2013 - **poor : no to both screening questions** 1. Did the study have a clearly focused aim? No - many different sub questions. 2. Was the cohort recruited in an acceptable way? No - no consecutive recruitment 3. Was the exposure accurately measured to minimise bias? 4. Was the outcome accurately measured to minimise bias? 5. Have the authors identified all important confounding factors? Have they taken account of confounding factors in the design/analysis? 6. Was the follow-up of subjects complete enough? Was the follow-up of subjects long enough? 7. What are the results? 8. How precise are the results? 9. Do you believe the results? 10. Can the results be applied to the local population? 11. Do the results fit with other available evidence?

	12. What are the implications of this study for practice?
Study population	Inclusion: Community dwelling women with hip fracture recruited between 1995 and 1998 (Boston) or between 1992 and 1995 (Baltimore) Exclusion: other medications or any disorders or abnormal admission test results that might affect bone, or had any underlying hip disease other than osteoarthritis; women with high-energy, pathological fractures or not community-dwelling at the time of fracture

	Hip fracture			Control*	p value of total hip fracture vs control
	Boston (N=30)*	Baltimore (n=127)**	Total (n=157)		
Mean age (± SD)	77.9 ± 9.2	80.8 ± 7.9	80.3 ±8.1	64.4 ± 8.1	< 0.0001
Race (% Caucasian)	91%	96%	95%	97%	NS

*these women were part of a larger study of 98 women with no other secondary cause for osteoporosis aside from possible vitamin D deficiency
**these women were part of a larger study of 205 women with acute hip fractures

Control	Women with elective hip replacement without osteoporosis (selected from a larger study in Boston)
Length of follow-up	n/a
Details of coeliac testing	The following was tested in serum which was taken and stored at –6°C: tTG-IgA (ELISA where normal < 1 U) If tTG-IgA normal, serum total IgA was measured (ELISA; normal70-400 mg/dl) If Iga was low, tTG-IgG (where normal ≥ 26 U) was measured
Results	Proportion with seropositivity for coeliac disease:

	Hip fracture			Control	p value of total hip fracture vs control
	Boston (N=30)	Baltimore (n=127)	Total (n=157)		
Seropositivity	3.33% (1)	1.57% (2)	1.91% (3)	1.96% (1)	NS

(patients with hip fractures had significantly lower vitamin D levels than the control group: median 14 ng/ml 25-hydroxyvitamin D compared with median 21.3 ng/ml in the control group, p < 0.0001)

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Conflicts of interest	Authors reported no competing interests

Comments

Definitions of abbreviations are given at the end of this document.