Table 1 Baseline demographic characteristics

	Patients with thiazide-induced hyponatremia(no. 80)	Patients without hyponatremia on thiazide (no.158)	p-value
Age (years)	74±8.5	65±7.5	$p < 0.0001$
Body mass index(kg/ m^2)	22.6± 4.17	24.19± 3.38	$p = 0.0017$
Duration of follow-up(months)	56.1±10.5	54.8± 10.5	$p = 0.3705$
Ever smoked	23(28.7%)	48(30.3%)	$P = 0.91$
Independent walking ability	50(62.5%)	128(81%)	$p = 0.0032$
Diabetes mellitus	5(6.25%)	3(2%)	$p = 0.122$
Living in long-stay geriatric facility	3(4%)	11(7%)	$p = 0.394$

Legend Continuous variables are expressed as mean ± standard deviation

		Patients with one or more vertebral fractures		
		yes	no	Total
Hyponatremia found during thiazide treatment	yes	34	46	80
	no	14	144	158
	Total	48	190	238

Odds ratio	7.6025
95% CI	3.755 to 15.3923
z statistic	5.636
significance level	P < 0.0001

Table 2 **This 2 X2 contingency table shows that, in female hypertensive patients older than 70 years taking thiazide diuretics, the odds of experiencing one or more osteoporotic vertebral fractures is significantly (p < 0.0001) higher among patients with hyponatremia(serum sodium level <135 mEq/l) compared to those with normal serum sodium levels (odds ratio:7.6025; 95% CI:3.755 to 15.3923). For further explanations, please see the text.**

Legend: CI= Confidence interval

TABLE 3 Multivariate logistic regression analysis

outcome variable: patients with one or more vertebral fractures

exposure variables: age(continuous);body mass index (continuous); hyponatremia during thiazide therapy(dichotomous); inability for independent walking(dichotomous); living in geriatric long stay facility(dichotomous); diabetes (dichotomous)

Odds Ratios and 95% Confidence Intervals

Variable	Coefficient	Std. Error	Odds ratio	95% CI	*p*
Age (continuous variable)	0.600	0.208	1.823	1.211 to 2.743	0.0039
Body mass index(continuous variable)	-1.852	0.721	0.156	0.038 to 0.645	0.0102
Hyponatremia under thiazide treatment	2.970	1.681	19.508	0.722 to 527.094	0.0773
Inability for independent walking	-3.318	2.289	0.036	0.0004 to 3.216	0.1472
Living in geriatric long stay facility	-3.136	2.482	0.043	0.0003 to 5.630	0.2063
Diabetes	2.217	1.556	9.179	0.434 to 193.958	0.1543

Table 3 Multivariate predictors of occurrence of osteoporotic vertebral fractures (one or more for each individual) among hypertensive female patients older than 70 years, all taking chronic anti-hypertensive therapy with thiazide diuretic (alone or in combination with other anti-hypertensive agents). As reported in the table , hyponatremia per se is not associated with significantly increased risk of osteoporotic vertebral fractures (p=0.0773). On the contrary, advanced age appears to be a risk factor (p= 0.0039), whereas a relatively high body mass index appears to exert a significant protective effect (OR: 0.156; 95% CI: 0.038 to 0.645; p= 0.0102) against occurrence of osteoporotic vertebral fractures.

Legend: CI: confidence interval; Std. Error: standard error