

Supplementary Table 1. Previous studies on secondary osteoporosis and bisphosphonate treatment

Study	Etiology	No. of patients	Age (yr)	Duration of treatment (yr)	Dose (mg/kg/yr)	Change in L-spine BMD	
						Baseline, mean±SD	Final, mean±SD
Henderson et al. ¹³⁾ (2002)	Severe CP	6	6.1–15.6	1.5	12.0	-3.4±0.4	-2.2±0.4
Grissom et al. ¹⁴⁾ (2005)	CP, spastic quadriplastic	12	6–19.5	1.1 (12–18 mo)	1 mg/kg/day for 3 days every 2 to 8 months	-4.1±1.1	-2.5±0.6
Plotkin et al. ²⁷⁾ (2006)	CP, spastic quadriplastic	23	2–18	1.0	4.12	-3.8±1.4	-2.3±1.2
Bachrach et al. ¹⁷⁾ (2010)	Quadriplastic CP, GMFCS IV or V	25	Mean 11.1	1.1	1 mg/kg/day for 3 days every 3 to 4 months	Fracture rate decreased (0.34→0.11, <i>P</i> =0.02)	
Moon et al. ¹⁵⁾ (2017)	Quadriplegic CP	10	2–17	0.9 (6–14 mo)	4.50 (2.25–8.80)	-4.2±1.2	-2.6±1.6
Yoon et al. ¹⁶⁾ (2021)	IJO, CP, IBD, chronic enteropathy	13	Mean 12.7 (5.8–17.8)	1.0	9.0	-3.8±1.4	-1.6±1.9
The present study	CP, GMFCS V	21	Mean 8.9 (3.0–16.0)	Mean 2.0 (1.0–4.0 yr)	Mean 7.7 (3.0–12.0)	-3.4±1.5 (-2.7±1.7*)	-2.8±1.3 (-1.6±1.4*)

BMD, bone mineral density; SD, standard deviation; CP, cerebral palsy; GMFCS, Gross Motor Function Classification System; IJO, idiopathic juvenile osteoporosis; IBD, inflammatory bowel disease.

*Height-for-age-adjusted BMD z-score.